

REPORT OF THE PROCEEDINGS  
OF THE  
NORTHUMBERLAND & DURHAM  
MEDICAL SOCIETY.

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SESSION 1888-89.

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Newcastle-upon-Tyne :  
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1888,

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The Medical Officers of Her Majesty's Forces in the District.



# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

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## SESSION 1888-89.

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### ANNUAL MEETING.

THE ANNUAL MEETING of this Society was held in the Library of the Newcastle-on-Tyne Royal Infirmary, on the evening of Thursday, October 11th—Dr. Hume (President) in the chair.

Dr. OLIVER (Secretary) read the Annual Report of the Committee for 1887-88, as follows :—

“Your Committee have pleasure in reporting upon the highly satisfactory state of the Society for the session now about to close.

“During the year 18 new members were added to the Society ; 4 were struck off for non-payment of subscriptions ; 5 have left the district, and 2 have died. Two honorary members were added, viz., Prof. Bedson and Mr. Clement Stephenson. The total number of members for the year is 172 as against 163 of the previous session.

“The members deceased are Dr. Luke Armstrong, and Dr. McLaren, of Bedlington. The former occupied the presidential chair seven years ago, and the Committee feel sure that, whilst expressing their regret at the death of Dr. Armstrong, there are many members present who remember him for the able manner in which he discharged the duties of the chair, and for the kind hospitality and courtesy which he exhibited to all.

“Beginning the year with a balance of £24 10s. 4d., the Treasurer has received during the session £80 5s., making the sum total of receipts £104 5s. 4d. The expenditure has been £46 4s., leaving a balance in the hands of the Treasurer of £58 11s. 4d.—a large balance compared to that with which we commenced the session, but partly to be explained by the fact that the bills for the printing and publication of the Transactions have not yet been rendered or paid in full.

“Grateful to those members who have in any way contributed to the success of the Society during last session, the Committee are sensible of the great advantages derived by all members who attend the meetings, from the freedom of discussion and the

interchange of opinion expressed thereat, and are hopeful that the coming session will not be behind its predecessors in the high scientific nature of the work which is done, nor in the interest exhibited by members in the meetings."

The report was adopted on the motion of Dr. MacKAY, seconded by Mr. W. G. BLACK.

Dr. MURPHY proposed that Dr. Auvard, of Paris, be elected an honorary member of the Society. This was seconded by Dr. OLIVER, and carried by acclamation.

The ballot papers for the election of officers for the ensuing session were scrutinised by Dr. Anderson and Mr. Black, with the following results:—

*President*—Dr. James Murphy.

*Vice-Presidents*—Dr. R. Anderson, Dr. G. H. Hume, G. B. Morgan, Esq., Dr. G. H. Philipson.

*Hon. Secretaries*—J. Limont, M.B. ; Thomas Oliver, M.D.

*Committee*—W. C. Arnison, M.D. ; W. G. Black, Esq. ; David Drummond, M.D. ; James Drummond, M.D. ; W. Gowans, M.D. ; A. Mantle, M.D. ; W. P. Mears, M.D. ; F. Page, Esq. ; G. E. Williamson, F.R.C.S.

#### THE RETIRING PRESIDENT.

Dr. HUME, on retiring from the chair, spoke of the continued prosperity of the Society, and alluded to the loss which it had sustained in the death of a former president, the late Dr. Luke Armstrong. He then introduced his successor, Dr. James Murphy.

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# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

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## SESSION 1888-89.

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### OCTOBER MEETING.

THE FIRST MONTHLY MEETING of this Society was held in the Library of the Royal Infirmary, Newcastle-on-Tyne, on the evening of Thursday, October 11th, immediately after the annual meeting—Dr. Murphy (President) in the chair.

Dr. MURPHY thanked the members for the honour they had conferred on him in choosing him to be their President.

Dr. GIBSON proposed a vote of thanks to Dr. Hume, the retiring President, and in doing so alluded to his skilful guidance of the discussions, and the very able manner in which all the duties of the office had been performed.

Dr. EASTWOOD had great pleasure in seconding Dr. Gibson's motion, according a vote of thanks to Dr. Hume, the retiring President. The able and courteous manner in which Dr. Hume had presided over the meetings of the Society entitled him to their warmest thanks. During the twenty-two years he had been a member he had known all the Presidents intimately, and had passed the chair himself. There had been many able Presidents, and Dr. Hume did not come behind any of them in his ability, and in the assistance he had given to the business of the Society. The best thanks of the members were, therefore, justly due to the ex-President for the services he had rendered during the past two years.

Dr. HUME thanked the Society.

### NEW MEMBERS ELECTED.

Anthony Bell, M.R.C.S., Newcastle-on-Tyne.

R. C. Bennington, M.B., M.R.C.S., Newcastle-on-Tyne.

### NEW MEMBER PROPOSED.

A. E. Morison, M.B., M.R.C.S., Hartlepool.



Professor PHILIPSON explained that his patient had failed to attend. He hoped, at a future meeting, that he would be able to show the patient.

#### CASE OF RODENT ULCER UNDER PROCESS OF CURE.

Dr. BRAMWELL said: J. S., aged 70, had suffered from rodent ulcer on the left temple for five years. It commenced as a small spot, which has gradually spread until the ulcer covered the whole of the left temporal fossa, and extended into the outer side of the orbit. The tissues were destroyed down to the temporal fascia and anterior inferior angle of the frontal bone, which was exposed. The treatment extended over the space of three months, and consisted in the repeated applications of chloride of zinc paste, at first applied over the whole surface, which caused a large slough to separate, after which the remaining portions of cancerous tissue were destroyed at intervals by applying the paste, spread on lint, over limited portions, until the whole was destroyed. The formula for the zinc paste used was—zinc chloride, 6 drachms; pulv. opii, 12 grains; hydro-chloric acid, 5 minims; aquæ, 1 ounce. One ounce of the above solution was mixed with two drachms of wheaten flour, which made a convenient paste. This paste had a much more powerful caustic action over the diseased than over the healthy tissues. Between the applications of the paste the wound was dressed with an emulsion of iodoform vaseline and eucalyptus oil. When a healthy surface was obtained healing was greatly accelerated by skin grafts. The ulcer is now completely healed, and the induration of the margins gone.

Dr. GOWANS enquired whether parts from the edges of the growth had been examined microscopically, and whether the possibility of the growth being syphilitic had been excluded.

Dr. JAMES DRUMMOND asked whether Dr. Bramwell had any experience of the use of cocaine in such cases.

Dr. HUME congratulated Dr. Bramwell on the successful result of his treatment. In his experience zinc chloride had given the best results, and he much preferred its use to excision. Zinc chloride undoubtedly had a selective action on the new growth. He was well satisfied with the zinc chloride combined with stramonium.

Dr. BRAMWELL, in reply, stated that the patient had not suffered from syphilis, and that he had found cell nests in scrapings taken from the base of the ulcer.

#### CASE OF SPINA BIFIDA TREATED BY MORTON'S METHOD.

Dr. GEORGE TAYLOR said: The little patient I shew was born five months ago with a spina bifida, of which the shrivelled



remains are still visible. The tumour was spherical in shape, sessile, but constricted at the base; the diameter at birth was about two inches, but this increased latterly to three inches. Six weeks ago, on account of commencing paralysis, I operated by Morton's method. I withdrew two ounces of fluid, and injected twenty minims of the iodo-glycerine solution. The operation was followed by convulsions and increasing paralysis, but the tumour rapidly disappeared, being now represented by a slight redundancy of the integuments, and the paralysis has now also passed away.

Dr. LYON, Mr. PAGE, and Dr. DRUMMOND made remarks, directing attention to the bad results which often followed the employment of Morton's method.

Dr. GIBSON reminded the meeting that the Clinical Society's Report had estimated the cures at 50 to 60 per cent.

Dr. TAYLOR, in reply, said that the operation, though a very simple one for the surgeon, was undoubtedly one of life and death to the patient. As this patient was very near death's door, the result might easily have been otherwise.

#### LARGE CALCULUS REMOVED BY SUPRA-PUBIC LITHOTOMY FROM A BOY.

Mr. PAGE showed a stone, and said: This boy, aged 16 years, was admitted into the Royal Infirmary, under my care, on the 24th of March last, suffering intense pain from the presence of a stone in the bladder, around which the viscus was firmly contracted. His urine dribbled away continuously, he passed a good deal of blood, and his general condition was very unsatisfactory. He had two epileptiform convulsions on March 25th, and one on the following day. On March 27th this stone was removed by supra-pubic lithotomy. The wound did not heal readily; sloughs were discharged from the interior of the bladder. The lad remained in the hospital for ten weeks, and was discharged in excellent health, but with a sinus through which more urine escaped during micturition. He is now quite well. The stone weighs three ounces and a half. This is the only case of supra-pubic lithotomy which has not, in my practice, made a rapid recovery, and that this did not do so is, I think, fully accounted for by the size of the stone, the condition of the bladder, and the state of the lad's general health at the time of operation.

#### PATHOLOGICAL DRAWINGS.

Dr. DRUMMOND exhibited upwards of sixty admirably executed water-colour drawings illustrating some of the rarer, as well as the more common, diseases of the brain, liver, stomach, &c.; also an interesting series of drawings of specimens of thoracic aneurism. Among the cerebral lesions depicted were the following:—Multiple



abscesses of both hemispheres, following acute bronchitis; acute encephalitis of left temporo-sphenoidal lobe, depending on septic thrombosis of the cavernous sinus; two cases of tubercular meningitis, one complicated by meningeal hæmorrhage; disseminated cerebral sclerosis; purulent meningitis of the convex surface, in case of ulcerative endocarditis; a group of cerebral tumours, including syphilitic gumma, sarcoma, tubercular and infiltrating glioma; brain of general paralytic, shewing atrophied convolutions; a large cyst of the left temporo-sphenoidal lobe.

The hepatic group included some of the less common varieties of cirrhosis—diffuse syphilitic, unilobular and unicellular, &c.; infiltrating carcinoma, sarcoma, liver from case of obstructive jaundice, large angioma, branching abscesses in bile ducts, leukæmic growths, acute yellow atrophy, various forms of nutmeg change, &c.

In the collection of drawings from stomach cases were nearly all the described varieties of malignant disease; malignant and peptic ulcer. This group also included sub-acute duodenitis, typhoid ulceration of the ilium, and carcinoma of the great omentum and transverse colon.

With few exceptions the specimens from which these drawings were taken were obtained by Dr. Drummond in the *post-mortem* room of the Royal Infirmary. The great majority were the work of Miss C. R. Shand, though Drs. Horace Page, Hugo Hardcastle, and Charles Steenberg contributed to the collection.

The PRESIDENT proposed that the thanks of the meeting be given to Dr. Drummond for his valuable exhibition.

Professor PHILIPSON seconded the vote of thanks, and stated that Dr. Drummond had directed his attention to drawings of morbid specimens from cases of his in the Royal Infirmary, and he could testify to their correctness. He expressed the hope that Dr. Drummond, at future meetings, would give a description of the drawings.

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## VILLOUS TUMOUR REMOVED FROM BLADDER BY SUPRA-PUBIC OPENING.

BY MR. RUTHERFORD MORISON.

W. H., æt. 63, Tow Law, a patient of Dr. Hood.

*Complains* of blood passing with his water.

*Previous Health.*—Thirty years ago was in America, and had typhoid fever. He has been troubled occasionally with outbreaks of psoriasis, of which he still has a patch here and there. With these exceptions he has been very healthy.

He has drunk a good deal of beer—more than was good for him—but has not been decidedly intemperate.

*Family History.*—There is nothing worthy of note.

*History of Present Illness.*—A little more than two years ago he first noticed blood in his water. There was no pain to draw his attention to the fact, and he only discovered it accidentally by seeing the colour of his water. A large quantity of blood passed at this time. It was not clotted, but thick, and the colour of porter. He got medicine from his doctor, and the quantity of blood got less, but never disappeared. At times there was less than others, and a little extra exertion increased the quantity. Six months ago he first began to have pain, when clots came with the water and blocked the passage, causing pain and straining.

He kept his colour well, except that he was a little pale at times, till the last two months.

Since then he has lost a stone in weight, being reduced from 14st. to 13st., has become pale, giddy in his head, and troubled with shortness of breath, palpitation, and squeamish attacks.

*Present Condition.*—The patient is a well-made, fair man, of average height and stout build. He is bleached from loss of blood, and is evidently incapable of any exertion. His legs and feet are considerably swollen, and pit on pressure. In spite of his condition he is cheerful, and not inclined to take a very serious view of the situation.

On examination a tumour was discovered in the left hypochondrium, which could be pressed into the lumbar region and felt with difficulty between two hands—one behind, the other in front. It descended freely on inspiration, felt firm, smooth, not tender, and had a sharp edge. No notch could be found, and owing to the stoutness of the patient it was difficult for me to decide whether it was spleen or kidney. Dr. Drummond, who kindly saw the patient with me and interested himself in the case, thought the tumour was spleen, that there was no evidence of

kidney disease or tumour, and that the hæmorrhage was probably of vesical origin.

When I saw him micturate the stream was free and equally blood-coloured from beginning to end.

The urine was normal in every respect, except that it contained a very large proportion of blood, and one-third albumen. The blood was sometimes clotted. The clots were mostly of an irregular, flattened shape. On one occasion a worm-like clot, which might have been formed in ureter or urethra, was found. No pieces of growth could be discovered after the most careful search. A sound passed into the bladder shewed that it was of normal elasticity, and not abnormally tender. The prostate and base of the bladder were healthy. The passage of the sound and its manipulation in the bladder were followed by no increase of the bleeding.

A fortnight later the old gentleman, having arranged his affairs and decided to undergo whatever operation was necessary, was anæsthetised.

I began by passing one of the large-eyed catheters used in lithotripsy, hoping that if there was a vesical growth a portion of it might be caught in the eye of the instrument and brought away. This manœuvre was not a success. An aspirator was now applied to the catheter, and boracic lotion pumped into and out of the bladder, without result.

I now passed a lithotrite, and made the same systematic search of the bladder as is done for stone. At the third opening and closing of the instrument, finding something grasped, I withdrew the lithotrite, and was rewarded by finding a piece of the specimen exhibited—an unmistakable villous growth.

Once more I passed the lithotripsy catheter, and used the aspirator syringe, this time to see whether bleeding had been increased to such an extent as to necessitate immediate opening of the bladder, which I came prepared to do. Several large detached pieces of growth were washed out by this means, and as the bleeding was not increased by what had been done, and as it was not impossible that the whole growth might have come away, further operation was postponed.

Five days later, on July 15th, 1888, the supra-pubic operation was performed. The incision was done in the usual way, the edges of the bladder being held by artery forceps. A soft, finger-like growth was found in the neighbourhood of the right ureter. It had a distinct pedicle, and there was no induration of the bladder wall at the point of its origin. It broke in the polypus forceps used for its extraction, and had to be removed in pieces. An india-rubber tube was left in the bladder through the wound, and the patient put to bed in a very favourable state.



*After Progress.*—All bleeding from the bladder ceased after the operation, and has never returned.

There is nothing to note in his recovery except that it may have been somewhat retarded by dyspeptic symptoms, sleeplessness, and nervousness.

On the 15th day urine passed by the urethra.

On the 28th day he left Newcastle for home, with only a very small granulating wound remaining.

I recently hear that this healed in a few days, and that his health is so far restored that he is able to carry on his business as formerly.

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## COLOTOMY.

By W. C. ARNISON, M.D., Senior Surgeon, Royal Infirmary, Newcastle.

The members of this Society will remember a paper by Mr. H. W. Allingham in the *British Medical Journal*, in October, 1887, advocating inguinal or anterior colotomy as being in most instances preferable to lumbar colotomy, and proposing an important modification of the old operation, namely, bringing the whole calibre of the bowel through the wound, and fixing it by means of sutures passed into the meso-colon in such a manner that the deep part of the bowel, with the meso-colon, formed a projecting spur which effectually prevented fæces passing down the rectum, and secured their discharge entirely through the artificial anus.

At the time this paper appeared I had a patient under my care in the Infirmary with malignant disease of the rectum, on whom I intended performing the operation of lumbar colotomy; but after reading the paper it appeared to me just the case for the new operation. There were no urgent symptoms, the finger could be passed through the constricted part, and I was waiting a convenient time to perform the first part of the operation, that of fixing the gut to the abdominal wall, when suddenly symptoms of acute obstruction set in, and rendered immediate operation necessary. In the concluding paragraph of his paper Mr. Allingham says:—"In those cases in which the patient has been left too long, namely, when the abdomen is tremendously distended, necessitating immediate opening of the intestine, I certainly consider the lumbar operation the safer." My case was clearly one in which immediate opening of the intestine was necessary; and, bearing in mind Mr. Allingham's dictum, I had resolved upon lumbar colotomy, but in consultation with my colleagues—Messrs. Page and Dodd—considerable doubt was felt as to the obstruction being really caused by the disease in the rectum, for the finger could still be passed through the constriction; it was therefore deemed advisable to open the belly in the linea alba so as to examine the whole length of the bowel, and let the result be the guide to further proceedings in the operation. This was done; the bowel was found distended down to the sigmoid flexure, shewing that the obstruction was due to the cancer in the rectum. The colon was then caught about the junction of transverse and descending colon; and, having a good meso-colon, it was readily drawn out at the opening, and fixed in the manner described by Mr. Allingham; skin and parietal peritoneum sutured together, and then visceral and parietal peritoneum carefully sutured together, both at the meso-colon and at the covering of the bowel



at the upper and lower part of the wound. The patient was then turned on his side, and the gut freely opened under an antiseptic stream, which quickly washed away the fæces as they poured out of the bowel; pressure was applied to empty the bowel more thoroughly, and irrigation employed, and the wound was then well packed with tenax, and the patient removed to bed.

Recovery took place without interruption or drawback; the patient was restored to comfort and freedom from pain; he gained flesh and strength, and in a few weeks left the Hospital, able to attend to himself as regards cleanliness, with full power of expulsion, and considerable control over the fæces. He returned as an out-patient from time to time, but, in about six months after the operation, died from extension of the cancer in the rectum.

Of the seven cases of anterior colotomy (I do not use the term inguinal) which have now been performed in this Hospital, this, the first case, seems to be the only one calling for any detailed statement, for it was not an inguinal colotomy, it was done under urgency, and the bowel was immediately opened.

Of the seven cases two were under myself, two under Dr. Hume, two under Mr. Page, and one under Mr. Dodd. All were for cancer in the rectum. All excepting the first were done in two stages, first fixing the bowel in the wound, and after a few days opening it, and all were successful, the patient recovering from the operation, and the object of it being fully attained. In my first case I followed Mr. Allingham's plan of first suturing skin and parietal peritoneum together. At the time it seemed to me to make the operation more difficult and complicated, and I did not do it in my second operation. My colleagues have not done it at all. After drawing the bowel well out of the wound, we pass the needle through the peritoneum covering the meso-colon, then through the abdominal wall, taking care to include the parietal peritoneum, and tie in such a way as to fix the parietal and visceral peritoneal surfaces in contact. This is done on both sides of the wound; and at the upper and lower end of the wound the intestine is fixed in the same way, taking care not to pierce the mucous coat. When the projecting bowel is cut away in the second stage of the operation, it sometimes bleeds freely at a few points, but they are easily seen, picked up, and tied.

In comparing inguinal or, as I prefer to call it, anterior with lumbar colotomy, let me take the two operations as they affect the surgeon, and as they affect the patient. Who that has performed lumbar colotomy can forget the long transverse incision, the deep dissection, the anxious outlook for landmarks, the groping about amongst connective tissue, the blowing up of the colon to aid the search, and make the operator more certain that he has picked up the right thing, then the doubt and uncertainty attending it; will the colon be found uncovered with peritoneum at the spot, or

will it have a meso-colon, involving a prolonged search, and perhaps the opening of the peritoneal cavity? Again, look at the limited choice of position. The surgeon is limited to a small portion of the descending or ascending colon, according as he takes the left or right side. Lastly, consider the results. First, in regard to life: about ten per cent. is believed to be the mortality as the immediate result of the operation, from erysipelas, shock, septicæmia, and other causes; and, in regard to the fulfilment of the object of the operation, every surgeon knows how often he is disappointed, owing to fæces still passing down over the raw and painful surface, and not all passing out of the wound. Contrast with these points in lumbar colotomy the small incision of anterior colotomy, about two inches being amply sufficient; the readiness with which the colon is reached—often, indeed, it bulges out into the wound; the certainty with which it is recognised, owing to the fibrous band in front; and the wide range of choice, extending, in fact, over the whole length of the colon. In most cases a small incision just inside the anterior superior spine will be the surgeon's choice. But, in my own second case, I opened about two inches above that, so as to keep well clear of the disease; and, in the first, I opened in the linea alba. Lastly, compare the results: In regard to the immediate effect on life, Mr Allingham, in his paper, records six cases, all recovering. He may be said to have acquired special skill, and to employ special care; but here we have seven cases, under four different surgeons, and all recovering, although the first was done under circumstances which Mr. Allingham himself regards as highly unfavourable.

In regard to the fulfilment of the object of the operation, that is most complete in every case; when the bowel below the wound gets emptied, nothing more passes, and the patient is ever afterwards freed from the pain and annoyance of fæces passing over the raw, cancerous surface.

In conclusion, to make the contrast complete, compare the two operations as they affect the patient's comfort. In lumbar colotomy, an artificial anus in a place which he can reach only with difficulty, and cannot see at all, and must in consequence be beholden to others for his cleanliness and comfort. In anterior colotomy, an opening which he can see and easily reach, which in time acquires a kind of sphincter action, and which can be kept blocked by a proper truss. He is, therefore, beholden neither to man nor woman in the discharge of a function, in which every decent human being wishes to be independent of extraneous help.

Mr. PAGE said he could not conceive any case in which he would now do the lumbar operation. All the cases he had seen done by the modern method had done very well.



Mr. RUTHERFORD MORISON said his experience of the lumbar operation had been quite satisfactory. The patients got relief and a fair sphincter power.

The PRESIDENT thought the anterior would be found to be the better method. In operating by the old method he had experienced considerable difficulty in finding the colon. Probably, as Mr. Treves had said to him, this might sometimes be due to the presence of a meso-colon—a meso-colon being found in a large number of cases.

Dr. ARNISON, in reply, re-affirmed the opinions he had expressed.

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## RAPID DILATATION OF THE NON-PREGNANT CERVIX UTERI.

By THOMAS OLIVER, M.D., M.R.C.P., Physician to the Royal Infirmary,  
Newcastle-upon-Tyne.

Struck by the successful results which have attended the operation of rapid dilatation of the cervix uteri, I venture to bring them under the notice of members of this Society. It was undoubtedly a considerable advance in gynæcological procedure when a fellow-townsmen of my own—the late Dr. Sloan, of Ayr, a gentleman not only of a well-merited local reputation, but widely known for his general scientific attainments—shewed that the insertion of a piece of the dried stem of a common sea plant—the *laminaria digitata*—into the cervix uteri caused, by inhibition of fluid, a gradual dilatation of the whole of the cervical canal. By this means he cured cases of dysmenorrhœa, due to constriction of the internal “os” and narrowing of the cervix, and was in other cases thus enabled to pass his finger into the interior of the uterus and explore its cavity. Similar results have been obtained by means of tupela wood and sponge-tents. But one of the great drawbacks to the use of sponges is the extremely ragged and torn condition of the cervical canal which is left on their removal. During the absorption of the fluid, which causes the sponge to expand, thereby bringing about dilatation of the canal, portions of the sponge penetrate into the tubular glands, swell up, and become firmly adherent, and it is the forcible avulsion of these root-like processes that leaves behind such a ragged wound in the mucous membrane. Besides, if sponge-tents have lain only for a few hours in the cervical canal, they always have on their removal a most offensive odour. The presence, therefore, of an unhealthy material resident in the sponge, or absorbed by it from the discharges exuded by a diseased endometrium, could easily be followed by an amount of constitutional or local disturbance, which might become more or less disastrous, owing to the abraded surface of the mucous membranes of these glands affording an easy and ready inlet for any poison. Disinfection of sponge-tents is a matter also of some difficulty. They are, in my opinion, such a highly dangerous article that, practically speaking, I have discarded them. To a certain extent the same remark applies to the employment of laminaria tents. Sea tangle tents carelessly and unskilfully employed—and sometimes, too, where even great care and skill have been exercised—have been followed by severe and, at times, fatal cellulitis. Laminaria tents are, on the whole, fairly clean, and if care is exercised before using them, as regards our



being perfectly sure of the absence of pelvic cellulitis or peritonitis, or in our seeing that the tents have been kept thoroughly disinfected—as, for instance, in spirits of wine, in which bichloride of mercury has been dissolved—as a rule no harm follows their employment, and the dilatation of the cervix is found to be satisfactory. But even in the disinfection of sea tangle certain risks are run. Crystals of the bichloride are apt to be deposited in or upon the tents, and thus is there danger of inducing mercurial poisoning. I have, however, a lingering affection for laminaria tents, as under their employment I have been able to institute and carry out free intra-uterine medication. The dilatation they effected was always slow and gradual; the process extended over several hours—8 to 24, sometimes 48—and always at the termination we found, particularly where the longer period was necessary, that the cervix was hard and irritable. The time required, too, is a drawback occasionally, and, besides, as we have seen, slow dilatation is not altogether free from risk. Offering no advantages, therefore, I have discarded slow for rapid dilatation, which, by means of Hegar's or Duke's dilators, I have been able to obtain in from five to twenty minutes after the commencement of the operation. In every instance I have been able to explore and complete the intra-uterine medication at one sitting. Chloroform has not always been employed, but I prefer that it should be given, for the operation is more or less painful, and, besides, spasm is reduced by chloroform.

I have not tried dilatation of the cervix uteri by continuous elastic pressure, as recommended by Lawson Tait.

The method of rapid dilatation, as recommended by Hegar, of Freiburg, consists in the successive insertion of graduated wooden bougies. Within twenty minutes after the insertion of a series of bougies, beginning with No. 2—an instrument not thicker than an ordinary uterine sound—I have been able to pass my finger into the uterine cavity through the dilated cervical canal. Here are the notes of a case thus dealt with:—

(1.) Trephina H——, aged 29, a widow, admitted into the Royal Infirmary on May 26th, 1888, complaining of “flooding” of seven weeks' duration; has had four children and two miscarriages; last child was born in August, 1887; labours were easy. Until present illness always had good health. Began to menstruate between the age of 14 and 15; has been irregular. Seven weeks ago was seized with a heavy flooding, which has continued ever since almost without interruption. Per vaginam: “os” is felt to be gaping; lips are extremely soft and velvety; the mucous membrane is soft and granular. There is a small fissure on left side of “os.” Lying behind cervix is a hard resistant mass, particularly to the right side, whilst to the left is a cystic mass of the size of a walnut. The uterine sound passes beyond the bend,

and when thus placed the point is felt to be entangled in some soft tissue in the uterus. The uterus is fixed. Pulse 100. Temperature normal. Chest healthy. Urine acid, specific gravity 1024; no albumen; no sugar.

On June 3rd, by means of Hegar's dilators, the "os" was rapidly dilated; and by the time that No. 14 bougie had been reached, my finger could be easily passed into the interior of the uterus. In the upper part of the posterior wall of the uterus, close to fundus, was felt a considerable mass of a soft flattened and fleshy outgrowth. I still dilated until I reached No. 17. This completed all the dilatation necessary, the time occupied being twenty minutes. By means of the curette, I scraped away all this fleshy outgrowth, and brushed the surface with equal parts of tinct. and lin. iodi. Patient made an excellent recovery; left the Infirmary on July 6th, there never having been any return of the bleeding. When seen on the 24th July she had had her first menstruation since the operation. The loss was natural. I have seen her from time to time since, and she remains quite well. The unhealthy pelvic condition detected at the operation is still present on examination, evidently not giving rise to any symptoms.

(2.) Alice W., æt. 20, single, admitted February 9th, 1888, suffering from severe uterine hæmorrhage. A year ago had severe bleeding, after which she menstruated every fortnight. For the last month she has bled daily, losing large quantities of blood, without pain. She is extremely blanched; chest healthy. Per vaginam: "os" and cervix healthy; vagina small; hymen natural. Rapid dilatation of cervix by means of Hegar's dilator was effected. By means of the curette a few thick pieces of villous mucous membrane were removed. Lin. iodi. was applied to the surface of the endometrium. Patient made a good recovery, and at present remains well.

But whilst I have no fault to find with the Hegarian method, except that the forcible push required each time a new bougie is inserted into the cervical canal, drags somewhat unkindly upon the cervix and the soft tissues which surround it, and is thus apt to tear the cervix away from the teeth of the vulsellum deeply plunged into its tissues, leaving nasty irregular gashes behind, I think I have found in the instrument of Alexander Dukes, of Dublin, as safe and rapid a dilator as it is necessary to have. In multiparæ I have effected dilatation of the cervical canal in five minutes, and in nulliparæ in twenty. The only objection that might at present be raised in regard to Dukes' dilator is, that for some gynæcologists the dilatation might not be complete enough, owing to the limited range of separation allowed to the blades, but this is a difficulty easily overcome. I have never experienced it, although I always take with me to these cases Hegar's dilators, for by means of them I could carry on the dilata-



tion did necessity arise. Here are some of the cases thus dealt with.

(3.) Margaret J. W., aged 19, single, sent to me by Dr. Slater, August 14, 1888, complaining of recurrent floodings of ten months' duration. Formerly she enjoyed good health. Began to menstruate at age of 13; was regular until September, 1887, when the loss became excessive, and lasted twice the normal length of time. At Christmas, 1887, she lost a very large quantity of blood; the bleeding continued for six weeks, then ceased for fourteen days, when it again returned, and has scarcely ever been absent since. She is extremely blanched, and looks very ill. Chest healthy; per vaginam "os" slightly gaping; cervix soft and fleshy. Nothing is felt in either cul-de-sac; sound passes half-an-inch beyond the bend. On August 15th, by means of Dukes' dilator, the cervix was rapidly dilated. In six minutes my finger was in the interior of the uterus. By means of a curette several small masses of a greyish white and somewhat glistening character, varying in size from a split pea to a horse bean, were removed, and the surface swabbed with equal parts of tincture and lin. iodi. The whole operation was completed in twenty-one minutes. For a fortnight patient did remarkably well—there was no hæmorrhage. On August 29th the bleeding returned, and it was so severe that ergot had to be given in very large doses. On September 3rd Dukes' dilators were again employed. A small outgrowth, which had evidently escaped my finger on the previous occasion, was felt at the lower part of the posterior wall of the uterus. This was removed by means of the curette, and patient has now quite regained her health, having had no more bleedings. Dilatation on this last occasion was effected in four minutes. When seen on 30th October was quite well. There had been no bleeding for nine weeks; then menstruated normally. She is no longer anæmic.

(4.) Mary G., aged 48, married, admitted into Infirmary July 24, 1888, complaining of bleeding from the womb of three weeks' duration; has been married 25 years; has had six children, all born dead; no miscarriages; patient always delicate. Menstruation began in her 18th year; was irregular until she was 20; since then and until lately regular. She is the subject of mitral regurgitation, with stenosis and pericarditis. Per vaginam: Uterus high up; sound passes beyond bend, and grates over a rough surface towards the fundus posteriorly. On July 25th, by means of Dukes' dilator, the cervix was sufficiently dilated within twenty minutes, that the finger introduced into the cavity of the uterus felt in the upper part of the posterior wall a small rough outgrowth. This was destroyed by means of sharp curette, and surface brushed with lin. iodi. The patient left on August 4th quite well, and is at the present free from bleeding.

(5.) Sarah S., aged 64, married, mother of ten children, admitted August 6th, 1888, complaining of "bleeding from the womb" of

six months' duration. Has been healthy, with the exception of inflammation of womb six years ago. For several months past the bleeding has been almost continuous: it would come away in gushes. I need not repeat the results of a vaginal examination. I dilated the cervix by means of Dukes' dilator, and in two minutes the canal was quite dilated. By the aid of a curette several pieces of very granular-looking tissue were removed. Patient made a good recovery.

(6.) Catherine F., aged 26, married, admitted into Infirmary August 8th, 1888, complaining of severe bleeding from vagina of eight weeks' duration. Has been married five years and had three children, all dead; had a miscarriage nine months ago. Menstrual history normal. About five months ago patient, who had not menstruated for three months, began to bleed, but she took no notice of it. At the end of a month it was still going on. She then had a very heavy flooding rather unexpectedly, followed by another, and since then bleeding has been constant. Per vaginam there is evidence of left-sided tubal disease and peritonitis. She is rather tender to the touch on left side. Cervix is small; "os" is granular, and bleeds easily. Sound passes half-an-inch beyond the bend. Endometrium feels soft and swollen. On September 5th, by means of Dukes' dilators, the "os" and cervix were fully dilated within seven minutes. A few soft pieces of tissue were felt near the fundus uteri, particularly on the right side. These were removed by means of the curette, and presented the greyish-white appearance of the fungosities so frequently met with growing from the endometrium. The surface was brushed with liq. ferri. perchlor. fort. and glycerine. For seven days after the operation everything went on remarkably well, when rather suddenly patient had a rigor, and the temperature rose to  $105^{\circ}$ , and she complained of pain above the crest of the left ilium. She was tender to the touch at this spot, and vomited freely. The bowels were extremely constipated, and after free use of enemata and saline purgatives the temperature fell to the normal in a few days, and the patient has since continued well—quite free from hæmorrhage.

(7.) Miss J., aged 57, seen in consultation with Dr. Bramwell, 10th June, 1888, owing to repeated uterine hæmorrhage. She is nervous, easily worried, and gives the following history:—Has on the whole enjoyed fairly good health until within the last few years. Menses ceased nine years ago. Seven months ago she was seized with pain in the back, followed by what she regarded as a return of the menses. The hæmorrhage was considerable, and was afterwards frequently repeated. Urine healthy; heart and lungs healthy; abdomen, nothing abnormal detected externally; per vaginam, "os" high up; cervix healthy; anterior wall of cervix bulges into cervical canal, almost obliterating it. Nothing is felt



in either cul-de-sac. Uterine sound passes one inch beyond the bend, and is felt to glide over two or three projections in the interior of uterus the size of beans. As the blood which escaped from the vagina had an extremely disagreeable odour there was the suspicion previous to an examination being made that there was malignant disease. The speculum, however, revealed a healthy "os" and cervix. On the 20th June, Dr. Bramwell and I dilated the cervix by means of Dukes' dilators, and in forty minutes dilatation was fairly effected. Dilatation of the internal "os" was in this case extremely difficult, and the whole process was much slower than in any of my other cases. I was able, however, to get my finger into the interior of the uterus, where, growing from the lower half of the uterus, on its posterior wall, could be felt a soft polypoid, and at the fundus uteri an intra-mural fibroid, about the size of a walnut. This was easily grasped between the fingers from above and below. By means of the curette we removed a small polypoid growth the size of an almond. The endometrium was swabbed out with lin. iodi., and the patient made a good recovery.

(8.) Mrs. C., aged 28, seen in consultation with Dr. Sutherland, of South Shields, July 25th, 1888. Two years and a half ago I dilated her cervix for severe and protracted uterine hæmorrhage, from which, through the treatment then adopted, she recovered, and remained quite well. Five weeks ago she miscarried, being three months pregnant. She lost a large quantity of blood, and ever since has bled daily. Yesterday it simply gushed away from her; that Dr. Sutherland had to plug. Per vaginam: the discharge is foul; roof of vagina is vaulted and resistant; old-standing peritonitis; "os" gaping; cervix hard. Sound passes more than an inch beyond the bend. Fundus uteri is tender, and its mucous membrane feels soft and swollen. In fifteen minutes, by means of Dukes' dilator, I was able to remove several pieces of a greyish-red, glistening material, foul smelling, evidently retained placental tissue. I brushed with iodine, and patient in a few days was quite well. She still remains in good health.

Within the last four months I have treated eight or nine cases of flooding of varying degrees of intensity by means of rapidly dilating the cervix, exploring the cavity of the womb, and removing, where possible, the apparent cause—viz., either a shred of some old placental tissue or a patch of fungating endometritis. All the cases have terminated successfully, and that, too, in spite of the fact that in many of them there were evidences of the existence of pelvic peritonitis—one of the greatest drawbacks to the employment either of sponges or laminaria tents—and also that many of the patients were extremely reduced as the result of the protracted hæmorrhage. I am of opinion that slow dilatation, by means either of sponge or laminaria tents, would not

have been followed by the same freedom from local and constitutional disturbance ; and in support of that opinion I would only allude to my experience in Dr. Sutherland's case. When I first saw her, two and a half years ago, the cervix was dilated by means of sponge tents. Most intense pelvic cellulitis followed. This time, though there was evidence of old-standing pelvic cellulitis and peritonitis, rapid dilatation was not followed by any untoward circumstances. This, though a limited experience, is quite in keeping with that expressed by numerous gynæcologists.

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# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

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SESSION 1888-89.

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## NOVEMBER MEETING.

THE SECOND MONTHLY MEETING of this Society was held in the Library of the Royal Infirmary, Newcastle-on-Tyne, on the evening of Thursday, November 8th—Dr. Murphy (President) in the chair.

### NEW MEMBER.

Mr. A. E. Morison, M.B., Hartlepool, was elected a member of the Society.

### NEW MEMBERS PROPOSED.

The following gentlemen were duly nominated, and will be balloted for election at the December meeting :—

G. H. Fitzgerald, M.D., M.Ch., Ponteland.

J. W. Leech, M.B., B.S., Newcastle.

C. S. Redmond, L.K.Q.C.P. Irel., L.R.C.S.I., Gateshead.

### CHANGE OF DATE OF DECEMBER MEETING.

The PRESIDENT said it had been customary to hold the December meeting on the first instead of the second Thursday of the month, to enable the examiners of the University of Durham College of Medicine to be present. The Society had always appreciated the presence of these gentlemen, and he had pleasure in moving that the December meeting be held on the first Thursday of the month.

Professor PHILIPSON seconded the motion, and in doing so said he felt certain that the two foreign examiners of the University of Durham—viz., Dr. Charlton Bastian and Professor Annandale—would appreciate the privilege of having the opportunity of attending the next monthly meeting of the Society.

The proposal was agreed to.

The PRESIDENT intimated that Mr. Jessop, of Leeds, was present with them that evening, and a hearty welcome was given to that gentleman.

Dr. ARNISON shewed two patients—one his own, the other through the courtesy of Mr. Page—on whom the operation of anterior colotomy had been performed with the important modification lately introduced by Mr. H. Allingham. The position of the artificial anus in the two cases showed to some extent the wide range of choice as regards the part of the colon opened, and the effectual barrier to the passage of fæces down the rectum, by means of the “spur,” shewed how perfectly the object of the operation was fulfilled.

Dr. D. DRUMMOND asked Dr. Arnison what his opinion of the pathology of these cases was. The appearance of the patients would not suggest that they were suffering from malignant disease.

Mr. JESSOP said he had not performed the operation of anterior or inguinal “colostomy.” He had done left lumbar colotomy in ninety cases, but was not satisfied with the results obtained by it. One wished in the lumbar operation to prevent fæces passing into the rectum, but this object was not fully obtained. The operation itself, in his experience, had been satisfactory, in that no case had died as the result of the operation, when performed without the occurrence of obstruction.

Latterly he had supplemented the lumbar operation by a subsequent colectomy. At present he had under his care a patient on whom he performed lumbar colotomy eight months ago. After the operation the growth developed greatly, and extreme trouble was caused by liquid fæces passing through the rectum. Here, as a secondary operation, he performed colectomy. This was done by drawing the lower part of the bowel out of the wound and closing it, and then drawing the upper part of the bowel out of the wound and stitching its edges to the skin. The operation performed on these cases by Dr. Arnison obtained the benefits of this proceeding at once. Another advantage suggested itself to him, and it was that the patient could see and attend to the opening himself. He was extremely pleased to have had an opportunity of seeing these cases.

Dr. GALLOWAY said he had had one of the cases shewn by Dr. Arnison under his care. He at first regarded the lesion as inflammatory, due probably to drink, and employed sedative treatment, under which the symptoms were considerably relieved. Six weeks after the beginning of the illness he discovered the constriction. It was about two inches above the anus; it was smooth, and not nodular, but so extensive that he could not reach beyond it with the finger. He might add that he had tried the effect of perchloride of mercury.

Dr. ARNISON, in reply to Dr. Drummond, agreed that the patient did not look like the subject of malignant disease; but,



like the first case on whom he operated, he had gained flesh and strength since the operation. The first case, as already mentioned, died in six months from the cancer in the rectum, and this man was already shewing signs of failing health, and had increasing bloody discharge from the rectum. On the possibility of it being syphilitic disease, treatment had been employed long enough to show that it was of no use. Dr. Arnison also reminded the meeting that a late much respected member of the Society had lumbar colotomy performed on himself for cancer of the rectum, and regained almost completely his former appearance of health, dying only this year from hæmorrhage, some years after the operation.

#### SUPRA-PUBIC LITHOTOMY.

Mr. PAGE: This boy, aged eight years, was cut for stone by the supra-pubic operation, October 16th, 1888. On exposing the bladder a plexus of vessels was seen, some of which it was impossible to avoid wounding if an incision were made large enough to admit the finger. The bladder was punctured with a narrow bistoury at a spot just sufficiently free from vessels to allow it to be done without wounding any, and a grooved director introduced, along which a narrow-bladed pair of forceps was glided, and an attempt made to seize the stone. The stone could not be readily grasped. By separating the blades of the forceps the opening in the bladder was enlarged without bleeding, the finger introduced, and the stone extracted with the forceps. The bladder wound was not sutured, but the skin wound was closed with a continuous catgut suture, a small drainage tube being left at its lower angle. A soft rubber catheter was secured in the bladder through the urethra. On the fourth day the wound was examined; it was healed. The drainage tube was removed. On the seventh day the catheter was permanently withdrawn, and the boy allowed to pass his urine. The temperature did not rise after the operation or during recovery. I think this case a very important one, for, so far as I am aware, it is the only one which has as yet been reported where the unsutured wound in the bladder has united by first intention without the escape of a single drop of urine from the wound.

#### EXCISION OF CONDYLE FOR TEMPERO-MAXILLARY ANKYLOSIS.

Mr. PAGE showed a girl on whom he had recently performed this operation. Also a boy operated on about two years ago for the same affection. (For report of case see paper by Mr. Page further on.)

#### CASE OF ALCOHOLIC PARALYSIS.

Dr. JAMES DRUMMOND: Perhaps you will allow me to say a word before introducing my patient. From the nature of the case

I cannot speak freely in his presence. He is suffering from heart disease as well as from alcoholic paralysis. My reason will, therefore, be obvious.

My patient is a stevedore at Tyne Dock, aged 39. He first came under my care about two months ago, complaining of difficulty of breathing, palpitation, and dropsy—symptoms all referable to the condition of the heart.

Regarding the history of alcoholism, I was at first misled as to the quantity of liquor he had been in the habit of taking. It was only after seeing him decidedly inebriate, and on making a fuller investigation from his friends, that I discovered he had been in the habit of taking from six to twenty glasses of beer daily. This he considered moderate. The first appearance of paralysis was noticed on the day after I had seen him in almost a helpless condition—viz., on October 16th. At this time the right leg was principally affected; he could not walk, and could with difficulty stand. I considered this a favourable opportunity for stopping the supply of stimulants entirely. The paralysis was almost complete in the right leg, and partial in the left leg and arm. He complained of numbness and cramp in the limbs, and coldness in the extremities. The tendon reflexes in both legs was absent for about a week. The muscles contracted but feebly, with a strong interrupted current in both legs and the right arm. There was also marked anæsthesia, especially on the outer surfaces of the limbs named. His memory is slightly impaired, he has no optic neuritis, and has complete control over the sphincters. In fact, the case at this time was one of well-marked alcoholic paralysis as distinguished from peripheral neuritis from other causes. The patient was able to walk with support about a fortnight after the onset of the paralysis, and has improved rapidly the last week or ten days. This good result is no doubt due to the complete abstention from alcoholic liquors. There is still some difficulty in walking, as the patient has not gained complete control of his right leg, and is apt to trip over any projection with his right foot. The left leg and right arm, however, are almost in their normal condition as far as motor power goes; but two days ago he was unable to distinguish one from two pin-points at a distance of three inches on the outer surfaces of both legs and right arm, shewing that there is some anæsthesia still present. The numbness and cramp has also disappeared, and the tendon reflexes have returned. The condition of the heart has also greatly improved on digitalis. There is now no dropsy, no albumen in the urine, and only slight dyspnoea on exertion. When I first examined the heart there was a loud systolic murmur at the apex and at the base. This has almost disappeared now, and the circulation is better maintained. The sphygmographic tracings taken at different periods will, however, better shew you the past and



present state of his heart. There is, as you will see, marked irregularity, with high arterial tension.

Professor PHILIPSON said that the irregularity in the heart's action was of considerable interest. He congratulated Dr. James Drummond upon recognising the peripheral paralysis as alcoholic in its causation, and inculcated the importance in these cases of requiring all alcoholic stimulants to be withdrawn, and for this to be a part of the treatment. He desired to know whether the digitalis had been continued throughout in the treatment, or whether the digitalis had been changed for strophanthus or some other cardiac tonic.

Dr. D. DRUMMOND said that, the patient having so nearly recovered, one would not be justified in criticising the diagnosis. He would suggest, however, that the diagnosis lay between alcoholic paralysis and a hæmorrhage into the posterior part of the internal capsule; the latter lesion would give rise to symptoms very similar to those which had been related. He would also be inclined to examine the man carefully to see if a kidney lesion was present.

Dr. EMBLETON said he did not quite catch what was said as to the kind and quantity of drink the patient had been in the habit of taking daily. A few glasses of beer per diem would hardly bring on paralysis. Many take much more without being so affected. When he was among German students more than half a century ago they would drink twenty to twenty-five bottles of beer in a day, and he never heard of them having had paralysis. Their beer, however, was much weaker than English beer. He had no wish to cast the least doubt on the diagnosis of Dr. James Drummond, but he thought that the patient, besides drinking a large quantity of beer, must have been indulging in much stronger waters.

Dr. GOWANS said he thought these cases were more frequent than was thought. Looking back over twenty years' practice, he could remember cases which in the light of our present knowledge he would have diagnosed as alcoholic paralysis.

Dr. JAMES DRUMMOND replied.

#### SUPRA-PUBIC LITHOTOMY.

Dr. HUME shewed calculi removed from two male patients by supra-pubic lithotomy, and said: This uric and phosphatic calculus, weighing 5drs. 25grs., was extracted from the bladder of an old man aged 73. He had been entirely dependent on the catheter for evacuation of his bladder for the last twelve years. For some months he had suffered a good deal of pain. He was found on examination to have an enlarged prostate; and when the

bladder was opened several mammillated projections of the "middle lobe" were found around the internal meatus. I was much tempted to remove these, but abstained on account of the enfeebled condition of the patient. After the operation a tube was left for forty-eight hours in the supra-pubic opening, and the urine drained per urethram by a soft catheter. He made a good recovery, his temperature only once rising above 100° F.

This second stone, a large flat oxalate of lime calculus, was removed from a man aged 44. The calculus is of a peculiar shape for an oxalate. It is an ellipse, measuring 3 inches in the long diameter and  $2\frac{1}{2}$  in the short, and its weight is 3 ounces. The patient had symptoms of stone for twenty years. The operation was done in the usual manner, and the plan recommended by Sir H. Thompson, of using the index fingers in place of forceps for the extraction of the stone, answered extremely well. The index of the right hand was inserted into the small incision made in the bladder wall, and the other index insinuated by the side of it. The two fingers were first used to gradually dilate the opening, and then being placed on either side of the stone, after the fashion of midwifery forceps, lifted it out without undue stretching or tearing. The tube and catheter were used as in the last case, and from the first almost no urine escaped by the wound. The operation was done on the 6th September, and on the 14th September the wound was superficial, and all the urine was passing by the urethra.

#### ENCHONDROMA OF TESTICLE.

Dr. HUME also shewed a cartilaginous tumour of the testicle which had been removed from a man aged 35 years. It had been of five months' growth, though there was a history of a kick twelve years ago, and of some consequent enlargement of the part. The tumour had been found to be a spindle-celled sarcoma, with masses of cartilage embedded in the stroma.

#### TUMOUR FROM SCARPA'S TRIANGLE.

Dr. HUME also shewed a tumour which he had removed from Scarpa's triangle in a middle-aged man. There was a history of strain, to which the patient attributed the growth. When cut down upon it had a blue, translucent appearance, having the character of a cyst full of blood. Care was taken to separate it from surrounding structures, to which it was everywhere adherent. It lay under the sartorius, and was adherent to the sheaths of the muscles, to the sheath of the femoral vessels, and finally was found to have originated from the outer division of the anterior crural nerve. When cut into it was seen to consist for the most part of a cyst filled with blood-clot, but where it had been growing from the anterior crural nerve the structure was dense and fibrous.



This latter portion has been kindly examined for me by Dr. Drummond, who reports that it is of distinctly sarcomatous structure. The tumour, in fact, seems to be an example of a sarcoma which has been hollowed out by hæmorrhage into a blood cyst, the capsule of the tumour remaining as the cyst wall. This is an occurrence in the development of these tumours of which I have already shewn examples to the Society.

Mr. SQUANCE: I have had the opportunity of examining three cases of sarcoma of the testicle, all of which occurred in the President's practice. The first was a case of cystic-sarcoma in a young man. The whole of the testicular tissue had disappeared, the entire growth consisting of cysts with delicately-formed villous growths projecting into them. The structure surrounding the cysts consisted of spindle-shaped and small round cells. There were a few cartilaginous nodules. The second case was an interesting one, inasmuch as both testicles were affected. The entire structure having disappeared, with the exception of the remains of some of the seminiferous tubules, the new growth consisted of a small round-celled sarcoma. The third case was one of cystic sarcoma, the structure resembling that of the first.

#### CALCULI FROM BLADDER.

Mr. JESSOP shewed three sets of calculi removed from the bladder.

The first was a large one, removed by the supra-pubic method from a patient in whom the symptoms of stone had been present for twenty years.

The second was a lithic acid stone, weighing over 4 ounces, removed from a man who had had symptoms for eight years.

In the third case thirteen small stones were removed by the supra-pubic method, and at the same time the hypertrophied part of the prostate was removed. He might remind the Society that we owed the operation of prostatectomy to his colleague at Leeds, Mr. McGill. In Leeds this operation was now frequently performed. By this operation of removal of the prostatic enlargement we avoid condemning old men suffering from this affection to a life-long use of catheters.

#### LARGE RENAL CALCULUS.

Mr. JESSOP also shewed a stone, weighing over 11 ounces, removed from the kidney by nephrotomy. The patient was a farmer, aged 54. Up till six months before being seen by Mr. Jessop there were no symptoms or signs of kidney affection. Milkiness of the urine was first noticed; the amount of sediment quickly increased, and the urine was soon half pus. The general health was much affected, and the patient became emaciated and cachectic. The left loin and left part of abdomen became filled

with a fluctuating tumour—a pyo-nephritis. This was drained, a pint and a half of pus escaping. On inserting the finger the stone shewn was felt. It was detached and removed through the lumbar wound by lithotomy forceps. The patient was convalescent in about a couple of months. He is now quite strong, and may be seen driving about following his occupation. There is, however, still a small sinus.

#### CALCULI FROM CASES OF CHOLECYSTOTOMY.

Mr. JESSOP also shewed specimens taken from cases in which he had performed cholecystotomy.

In the first case there was a history of colic and jaundice for seven years. At the operation the six stones shewn were removed; they were too large to pass through the cystic duct. The gall-bladder contained also some mucus. The bladder was stitched to the abdominal wall. The patient made a good recovery, and the fistula was now closed.

In the second case the number of small stones shewn were removed from a similar case, and with a similar result.

In the third case the patient, a woman, was not known to have passed any stones. On cutting down, which was done during an attack of jaundice, the bladder wall was found to be very hard. It contained mucus, but no stone. On feeling beneath the liver, however, about the commencement of the common bile-duct, a stone was discovered. It was pressed back into the gall-bladder and removed. As far as he could judge it had been lying there for six years. The patient made a good recovery. He would direct the attention of the Society to the fact that he had operated during an attack of jaundice, in opposition to the generally received dictum that this should not be done, since jaundice favoured bleeding. This had not been so in this case.

Dr. HEATH: Sir,—The members of this Society must feel indebted to Mr. Jessop for the interesting communication he has so lucidly made to them. In regard to the removal of a portion of an enlarged prostate gland, I would observe that this has been designedly done, I think, from an earlier period than stated by Mr. Jessop. One such procedure certainly recurs to my mind, one which should be interesting to the members of this Society, since the subject was a well-known and distinguished surgeon in this district, and a member of this Society, viz., Sir J. Fife. Sir John unfortunately suffered both from stone and enlarged prostate. Lithotomy was performed by Sir W. Fergusson; the stone, and at the same time a portion of prostate, being removed. The result was good and successful in every way. Other similar cases are recorded, although at this moment I cannot particularize them.



Mr. Jessop has shewn us a number of small stones removed by supra-pubic lithotomy. I did not gather, sir, from his account, whether this mode of access to the bladder had been adopted simply by preference or on account of reason special to this case. In my own practice, in the absence of any special cause, I should have preferred the sub-pubic road—median lithotomy—which has always seemed to me the road, excellent beyond all others, for the evacuation of small stones such as these, particularly where they occur in some number.

In median lithotomy no structure of any serious importance is interfered with; the bladder itself is not touched with the knife; the proceeding is, indeed, only what one would use, without hesitation, for drainage of the organ. The finger reaches the interior of the bladder easily enough, unless the perinæum be very deep; and I have, indeed, several times removed a small stone with the finger alone, the stone being caught in the first joint of the fore-finger. A single, or perhaps half-a-dozen, small stones may very well be broken up by the lithotrite; but when we come to larger numbers—ten, twenty, or more—surely lithotrity would be tedious, if not unsafe. A stone such as this, no bigger than a marble, passes readily through the passage made by median lithotomy, without stretching, dilation, bruising, or laceration of neck of bladder—accidents which may be disastrous, and render the median sub-pubic unfit for stones above a small size.

Dr. HUME said he had recently removed 58 calculi from the gall bladder of a man. Unfortunately in this case a biliary fistula had remained.

In answer to remarks of Dr. Heath,

Mr. JESSOP said it was one thing to remove part of the prostate by accident, quite another thing to do so with deliberate intention. He had himself, some eighteen years ago, and twice since, removed nodules from the prostate while performing lateral lithotomy. Mr. McGill's operation differs from such a proceeding in that it aims at doing away with the necessity of using catheters, and this is done by tearing or cutting away or enucleating part of the prostate. The operation was first introduced about two years ago. With regard to lithotomy, of course the cases in which the supra-pubic method was to be preferred were still a matter of dispute. All were agreed that it was *the* operation for large stones. In boys virility should be a matter for careful consideration. In his opinion then the supra-pubic method was indicated in cases of large stone, and sometimes in children.

In answer to Dr. Hume he would say that biliary fistula will result if there is closure from any cause of the common duct. If the ducts are free, fistula will rarely, if ever, result. Attempts to close the fistula have, so far as he was aware, failed. He agreed

with Mr. Lawson Tait that the attachment of the opened gall bladder to the cutaneous surface is the best practice.

#### HONORARY MEMBER.

The PRESIDENT, in the name of the Society, thanked Mr. Jessop for his valuable and interesting demonstration. He had also much pleasure in proposing that Mr. Jessop be elected an honorary member of the Society.

The proposal was seconded by Dr. HEATH, and carried by acclamation.

#### CASE OF CHRONIC CYSTITIS WITH BONE-EARTH URINARY CONCRETION. REMOVAL BY MEDIAN LITHOTOMY. DRAINAGE OF BLADDER.

Dr. HEATH: This specimen of urinary concretion, sir, is a good example of the deposit which so often takes place from alkaline, muco-purulent, and foetid urine.

It is partly in the condition of fine granules, partly in irregular masses varying from the size of a split pea to that of a filbert. The greater part of what is now in a granular state is the result of the disintegration of larger masses from the drying of mucus by which they were held together, and some of the larger pieces have evidently formed part of a mass too soft and friable to bear the impact of instruments.

When the phosphate is deposited from alkaline urine in minute granules these would seem to become entangled in mucus or some peculiar form of animal matter, and rolled up as it were by the action of the bladder into a more or less consistent mass, which is, however, easily broken down, especially at first, but which by degrees becomes firmer and serves as a nucleus upon which other deposits take place, the outer layers being always softer and more friable than the central portion.

Chemically the specimen consists of phosphate of lime, coloured by blood, probably; and even now, in its dry state, mixed with animal matter more or less of the nature of mucus. The colour and behaviour of portions under the blow-pipe and to re-agents might lead to the supposition that uric acid was present; but Dr. Bedson assures me that is not the case.

“Dear Dr. Heath,—I have re-examined the calculus, but without obtaining any indications of the presence of uric acid or urates. I should describe it as phosphatic, there being associated with the calcium phosphate organic substances, which char on heating, and impart the colour to the calculus.—Yours faithfully,

“P. PHILLIPS BEDSON.”

The patient was a man of 63, who had suffered for nearly three years from urinary difficulties, stricture, slight prostatic enlargement, and chronic cystitis, with occasional attacks of retention.



He had been under several medical men, and had been sounded more than once, no foreign body being detected in the bladder. When he came into my hands he was a patient of Dr. Dalgleish, by whom he had been taught to use a catheter, and who had also washed out the bladder.

I was consulted on July 24th, 1888, at which time the patient's condition was deplorable. The urine was strongly alkaline, loaded with muco-pus, and abominably foetid. Every discharge of urine was attended by extreme suffering; the man was emaciated, and the subject of great nervous depression and anxiety.

On sounding, although no stone was distinctly struck, I was satisfied that the instrument came in contact with calcareous matter.

The case appeared to me to be one of chronic cystitis, with probably altered mucous membrane and calcareous deposit, this not being apparently in the form of a perfect stone, and being *the result of the bladder affection rather than its cause*. I proposed, therefore, to treat by drainage, clearing out all calcareous matter by antiseptic irrigation and washing out.

On July 26th an opening was made in the perinæum, on the lines of Allarton's median operation, and partly by forceps, and more by scoop and finger, the bulk of the calcareous matter removed.

The bladder was then washed out with a weak solution of chloride of zinc— $\frac{1}{2}$ gr. to oz.—a full-sized lithotomy tube introduced, to the end of which a rubber drainage tube was attached, the distal extremity of which dropped into a bottle containing carbolic acid lotion.

My friend, Dr. Oliver, was good enough to administer chloroform for me on this occasion, and Dr. Dalgleish and his son assisted me in the operation, the latter gentleman holding the staff.

The operation done, commencing at what, in my dissecting-room days, we used to call the recto-urethral triangle, takes the most direct, although perhaps not actually the shortest, route to the membranous part of urethra and neck of bladder. Practically, it is similar to several other operations called by the names of various surgeons and used for various purposes. After opening the posterior part of membranous portion of urethra, the apex of prostate only is divided. Through the wound thus made the finger gains ready access to the interior of the bladder, which, the other hand being placed above the pubes, can be fairly well explored. Small stones or foreign bodies may be readily removed by means of this procedure, and, if more room be required, the prostate gland may be split by the finger as easily as when lateral lithotomy is employed. No stretching, however, or bruising of the neck of bladder is admissible, and the operation

is not applicable for the removal of any but small stones, and for such other purposes as drainage, exploration, &c.

The method of drainage used, and which I have employed for several years, gives a closed aseptic system, consisting of bladder, lithotomy tube, drainage tube, and bottle containing antiseptic solution, by means of which the bladder is thoroughly drained, and may be irrigated at pleasure by the attendants, the further end of the rubber drainage tube requiring simply to be raised above the level of patient's hips and solution poured in through funnel. The solution thus flows easily and gently into the bladder.

In this case the bladder was thus irrigated with boracic acid solution every hour or two by the nurse, and was washed out three or four times a day with weak solution of hyd.-perchlor. Had the operation, sir, been performed for the removal of an ordinary small calculus from a healthy bladder, the lithotomy tube would have been removed in twenty-four hours, and the wound allowed to close. Healing would have been completed in from seven to ten days; but the bladder conditions being what really constituted the main object of treatment, the tube was retained for about five weeks, during which drainage and irrigation were continued. Afterwards the tube was removed, but the patient continued for another month to pass a full-sized, round-ended, soft catheter through the wound, and in this way the washing out was continued for some time longer.

This man is now, and has been for some time, perfectly well—urine clear and sweet—presenting in his healthy and cheerful appearance a remarkable contrast to his state when the treatment was undertaken.

CASE OF OSSIFYING PERIOSTEAL SARCOMA OF LOWER END OF FEMUR.  
AMPUTATION IMMEDIATELY BELOW THE SMALLER TROCHANTER.  
DISSECTION OF UPPER END OF FEMUR FROM ACETABULUM.

Dr. HEATH: This, sir, is a characteristic specimen of periosteal sarcoma in process of ossification.

The growth is placed at what might be termed the place of election in the femur for such growths.

The line shewing its origin can be easily traced.

The preparation seems harder since its removal and immersion in spirit.

During life the tumour gave to the hand a softer, more cushiony, and elastic feeling in one part, almost as though a cyst were present. This part was incised previous to the removal of the limb, but after the patient was placed under the influence of chloroform; only blood, however, was the result.

According to Gross, periosteal sarcomata are among the most infective of growths, and, what is remarkable, they return more



frequently in some part of the general system, especially the lungs, than locally. 100 per cent. infect the system generally.

The ossifying variety is not so dangerous, but 65·62 per cent. infect the general system.

My own experience, so far as it goes, agrees, and where amputation has been performed as high as the trochanters, the rest of the femur being left, I have known disease return in the lung within the year.

In the present case the limb was taken off immediately below the less trochanter by oval incision, and the head of the bone subsequently dissected out of the acetabulum.

The patient was not emaciated, although somewhat anæmic, and the wound so high up the thigh and opening up the joint was large, and took some time to heal; it has now been healed for some time.

The operation was done on July 25th, and the patient remains at this time perfectly well.

#### PLASTIC BRONCHITIS.

Dr. LIMONT: J. F., aged 38, a sailor, was admitted into the Royal Infirmary on September 7th, 1888. Patient was a Norwegian, and could not give a clear account of his illness. As far as could be made out he had had cough and night sweats for three months, and had been laid up for fourteen days. When he was admitted the temperature was 104° F., pulse 100, and respiration 28; there was expectoration of blood tinged with mucus, and dry and moist sounds were heard all over both lungs. The abdomen was distended, but there were no spots nor diarrhœa, and the spleen was not enlarged. Neither at this time nor subsequently was there any albumen in the urine.

For a day or two the diagnosis was doubtful; then dulness—not at all of an absolute character—appeared at the right base, with distant (non-tubular) breath sounds, crepitation, and diminished vocal resonance.

The case was then diagnosed as lobar pneumonia. After remaining some days in this condition the temperature fell, patient was much better, and apparently convalescent.

On September 28th the temperature, after being normal for three days, suddenly rose to 101°. Next day it was still 101°; there was tickling cough, hoarseness of voice, pain over the larynx, and difficulty in swallowing. On the 29th of September a piece of membrane was coughed up; it was  $\frac{1}{2}$  in. in length by  $\frac{1}{4}$  in. in breadth. It was white—very tough and elastic. Under the microscope it was seen to consist of a fibrinous-looking material entangling leucocytes. From this time till death, on October 3rd, patient got steadily worse. The temperature varied between 100 and 102, pulse 100, respirations about 30. Marked

lividity and prostration came on; from time to time large casts were coughed up. Latterly the dyspnœa was extreme, and accompanied by drawing in of the lower part of the thorax.

*Post-mortem* report:—

“Lower lobe of right lung consolidated, and of a dark grey appearance on section. On pressure there exudes a large quantity of brownish serum, also pus and fibrinous casts from the cut bronchi. The right bronchus contained a complete cast of fibrinous material, and the larynx and trachea were lined with a similar material. The bronchi of left lung similarly, but not so markedly affected; in the lung a small patch of consolidation similar to that found in right lung. Kidneys normal. Spleen weighed six ounces. In the lower part of the ileum some small superficial ulcers.”

Sections of the casts under the microscope shew them to consist of a fibrinous-like material, in parts fibrillar, in parts granular. Entangled in this material are leucocytes and a few red blood corpuscles.

#### MITRAL STENOSIS.

Dr. LIMONT shewed a marked example of “button-hole” mitral. The two flaps of the valve had united so as to form a canal about an inch in length, with slit-like opening at the auricular end and a similar opening at the ventricular end. The canal so formed was calcified. The muscoli papillares were extremely hypertrophied, and the cordi tendineæ had disappeared. The specimen was taken from a woman aged 36, who had never suffered from acute rheumatism, but had had “rheumatic pains.”

Professor PHILIPSON stated that fibrinous casts of the bronchi were uncommon. He desired to hear from Dr. Limont whether hæmorrhage had occurred at the time of their expulsion or afterwards. In the cases of plastic bronchitis which he had seen the patients had suffered from severe paroxysmal dyspnœa, threatening asphyxia, with symptoms of general collapse. He was desirous of hearing from Dr. Limont whether his patient had so suffered.

Dr. LIMONT, in reply, said that hæmorrhage had not occurred in connection with the expulsion of the casts.

#### FIBROID TUMOUR OF UTERUS REMOVED BY ABDOMINAL SECTION.

Mr. RUTHERFORD MORISON: Mrs. S., æt. 37, widow; married 20 years ago; only child, 19; no miscarriages. Complains of aching in back; bearing down. General condition, good; cheerful but nervous woman; sallow complexion; dark hair and eyes, and large featured. Temp. 98·4, pulse 80. No glandular swellings, eruptions, or other external abnormality. Both ankles slightly œdematous. Habits have been regular. Work, hard; teaching.



*Previous health.*—Until 11 years ago had no illness but slight facial erysipelas. 11 years ago gonorrhœa from husband; “inflammation of bowels and womb” during course of this laid her up five weeks. Got quite well till four years ago. Had retroflexion; wore a pessary a year, and remained well till present illness commenced.

*Family history*—Good.

Catamenia commenced, 13; stopped for six weeks when illness began.

*History of present illness.*—A year last June menstrual period was suddenly checked by excitement; bowels swelled; back ached. She had difficulty in getting about. At this time the quantity of loss was normal; after a few periods, increased. Pain was felt at each period, but disappeared soon after cessation. Began to feel much worse at Christmas, and had sensation of something come down inside. Pain now severe, and loss considerable. She was still able to get about with a little difficulty. Pain abated, but never disappeared when menstrual period stopped.

In January I saw her, and found a tumour the size of a walnut in Douglas’s pouch, very tender and adherent to back of uterus, fundus of which could be felt above tumour by bimanual palpation. Put in a ring pessary; did no good; pain got worse. Menstruation returned every fortnight, profuse and painful. Sent to bed; hot douches and glycerine pads daily applied by nurse. Pains abated, discharge diminished, and only occurred once in three weeks (a month her normal time), becoming normal in quantity. As long as she remained in bed she continued comfortable; kept there three months. On examining her again I found swelling much increased, and giving the impression of a cystic ovary firmly fixed to back of uterus. Size of tumour has gradually increased, and is now like a cocoa-nut.

A month ago patient consulted Dr. Murray, who agreed that there was a tumour behind and connected closely with the uterus, which was probably a cystic and adherent ovary. A sound used by Dr. Murray passed three inches, and shewed uterus to be spread over front of tumour. He advised early operation, explaining to the patient that she could only be cured by that, and telling her that it would be a very serious one. The patient, for some time anxious to have an operation performed, at once made up her mind to have the tumour removed. Last menstrual period, a week ago, had more pain and more discharge. She has never been able to get about, except very slowly and carefully, since laid up for pain. The pain has been in left iliac fossa, in left hip, and down front of left leg, which feels numb. This pulls her up suddenly if she attempts to exert herself.

Since Christmas she has had frequent desire to micturate. With this exception she has no sign or symptom of disease in any other organs.

*Examination of abdomen* reveals nothing. P. V. uterus fixed, and pushed forward by a swelling in Douglas's pouch, adherent, and occupying cavity of pelvis. Swelling feels like the broad end of a large hen's egg pushed in and fixed between uterus in front and sacrum behind. It cannot be moved in any direction, and is somewhat tender on pressure.

*Diagnosis.*—Cystic ovary, adherent, from pelvic peritonitis, in Douglas's pouch and to back of uterus.

*Operation*, Sept. 24, 1888. Present—Drs. Drummond, Oliver, Murphy, Watson, Martin, A. E. Morison.—Incision, ordinary one in linea alba. Introduced hand; could make out none of the ordinary landmarks from matting together of pelvic viscera. With difficulty lower end of tumour reached. Separated from its bed, tilted upwards, and made to appear at wound. It did not look cystic, but felt elastic enough to contain fluid. Aspirated without result. The whole tumour now protruded through wound after separation of many adhesions. It was clearly so closely connected with the uterus that the only satisfactory method of removing it was to take part of the uterus with it. Thinking it still a tumour of right ovary, I determined, after consulting gentlemen present, to take away as well left ovary and its appendages, regarding this as essential to comfort of patient in event of her recovery. This difficult proceeding was only accomplished by the separation of many adhesions. The uterus and left broad ligament were now caught in Keith's clamp, and the tumour and left appendages cut off. There was no bleeding, not much tension on stump, and the clamp worked satisfactorily. Abdominal wound entirely closed above and below clamp. Stump dressed with iodoform, and the wound with gauze and wood wool. The whole operation had been conducted with antiseptic precautions, including spray.

*Examination of Tumour.*—Soft fibroid, springing from fundus of uterus. Uterine cavity of normal length. Pedicle long enough to allow of complete retroflexion of tumour without displacement of uterus.

*After Progress.*—Patient soon recovered from shock of operation, and by evening was very well. 7 p.m., pulse 108, temp. 99; 11.30 p.m., temp. 99.6.

Sept. 25, 3 a.m., temp. 99.4; 6 a.m., temp. 99.4; 9.30 a.m., pulse 108. Has had a fair night, but required 30 minims tinct. opii for pain, given in enemas of beef tea. 1.45 p.m., temp. 99.5; 7.30 p.m., temp. 99.4; 9 p.m., temp. 99.4, pulse 132; 12 a.m., temp. 99.8, pulse 120. Not sick since operation.

Sept. 26, 6 a.m., temp. 100; 8.30 a.m., pulse 144, temp. 99.8. Complains of feeling swollen. A good deal of tympanitic distension; no sickness. Pain dragging; relieved by enemas of opium and beef tea. 1.30 p.m., temp. 99.8; 4.30 p.m., pulse 140;



5.30 p.m., temp. 100.2; 8.30 p.m., temp. 100; 11 p.m., pulse 138, temp. 100.

Sept. 27, 2.45 a.m., temp. 102.2; 4.45 a.m., temp. 103.2; 6.45 a.m., temp. 103.6; 8 a.m., temp. 104.6, pulse 140. Abdomen swollen and tympanitic; conjunctivæ jaundiced; had not slept at all. 9 a.m., wound dressed for first time. All looked healthy. Three stitches removed, and wound opened sufficiently to allow of glass tube being put in Douglas's pouch. Possibly the evident septicæmia arose from septic peritonitis, and I did not like to let the patient die without giving her this chance. There was no fluid in abdominal cavity. 12.30 p.m., temp. 103.2. No vomiting or pain, and does not realise her serious condition, talking hopefully. 2.30 p.m., died—somewhat suddenly.

*Post-mortem.*—Stomach and intestines much dilated with gas. No trace of peritonitis or fluid in abdominal cavity. Stump of uterus on section shewed purulent, foetid clots.

*Cause of Death.*—Septicæmia, from septic thrombosis of uterine veins.

The PRESIDENT: I will not take up the time of the Society by discussing the various or most suitable methods of treating fibroids of the uterus, but am anxious to exhibit this specimen, which consists of the whole uterus and two fibroids, weighing altogether a little under four pounds, which was removed by M. Péan, in his private hospital in Paris, last summer, when I had the honour of assisting at the operation, in addition to his usual assistant, M. Collin, and an Egyptian, surgeon to his Highness the Khedive. But before proceeding to do so, I must express my sympathy with Mr. Morison that his patient did not fare as well as she deserved; as, from the manner in which the operation was performed, and her subsequent condition, I had every hope she would have done well.

M. Péan's method consists in removing these tumours, per vaginam, by what he calls the method of *morcellement*, that is, taking them out piecemeal, and is described by his late *interne*, M. Secheyron, as follows, in his thesis "*De L'Hysterotomie Vaginale*," which is not yet published, but with which I have been favoured with an uncorrected proof, and of which I venture to submit the following translation, describing the operation:—

"The operation is divided into many stages: (1) The liberation of the cervix from the vaginal insertions. (2) The section of the cervix and of the segment of the uterus as far as the level of the tumour. (3) The *morcellement* of the tumour, followed or not by the enucleation of a part of the tumour. (4) Resection and suture of the lips of the cervix.

"The instruments necessary for this operation are—(1) Sims's specula, or many retractors bent at a right angle—three at the least. (2) Two or three large vu'sella (*pince de Museux*). (3) Long-

handled knives, straight and curved. (4) Forceps, straight and curved, with elongated beaks, with teeth and without teeth, round and square, in number five or six. (5) Péan's forceps, to the number of twenty or thirty. (6) Scissors, curved and straight. (7) Péan's needles and silk.

"The patient is placed in the position for vesico-vaginal fistula, left lateral position, left thigh extended, right thigh flexed, and supported by an assistant. Two or three retractors are held by two assistants, disclosing the cervix and fundus of the vagina; the cervix is seized and fixed by a large *pince de Museux*; a circular incision is made round the cervix at the level of the vaginal insertions; hæmostatic forceps are applied according to necessity to the bleeding vessels on the vaginal surface. This is the moment of the operation when the hæmostatic forceps are the most required; for, to continue the operation, it is necessary to obtain complete hæmostasis. The peeling off is continued as high as the circumference of the cervix. The bistoury is kept very close to the cervix (*le col est serré de près avec le bistouri*), in order not to injure the bladder and ureters; the cervix becomes thus very movable, free, like a pendulum. During this part of the operation care must be taken to prevent injury to the peritoneum, in opening the cul-de-sac. This accident is not so serious as one might suppose; in certain cases, even, it is necessary to make this perforation, to reach the fibroma projecting into the cul-de-sac.

"SECOND STAGE.—*Incision of the cervix and of the inferior segment of the uterus up to the fibroma.*—The cervix is closed. Long, straight scissors, blunt-pointed, are introduced open into the cervical cavity. It is sufficient by the pressure of the handles to obtain a clear section. A *pince de Museux* is placed on each of the lips, anterior and posterior; the finger introduced into the uterine cavity, determining the exact seat of the tumour, the point at which it will be most easily reached. The tumour is distinguished from the uterine walls owing to its whiter aspect, not being so purple (*moins violacé*), and especially owing to its denser consistency.

"During this exploration it is easy to make use of traction by pulling down the uterus.

"THIRD STAGE.—*'Morcellement' of the tumour.*—This stage is unnecessary if the tumour is small; it is sufficient to draw forcibly with some rotatory movement to extract it from its bed; but if the tumour is somewhat large, it will be preferable not to expose oneself to injuring the uterus, and to proceed to the *morcellement* of the mass. Whatever may be the seat of the tumour, this stage, more or less difficult, is always identical, and it is accomplished after the general principles of the *morcellement*.

"The tumour is projecting towards the cavity of the uterus, or towards the peritoneum, or directed towards the vagina.



It is pulled down by a continued traction by a *pince de Museux*, or better by long forceps, with teeth or ringed ; with these forceps the tumour is not torn readily, the grip is more secure, and the following manœuvres are facilitated. The moment of *morcellement* is arrived, the retractors are introduced, the large ones into the vagina, the small ones into the uterus if necessary, disclosing the field of operation as widely as possible. In St. Louis Hospital an electric light is used.

“This stage of the operation is not to be attempted if one has not by him numerous forceps, bent and straight, some with teeth of several sizes, and in sufficient number, one or two straight bistouries with long needles, and two pairs of scissors, straight and bent, with long handles. The fibroma, recognised by the finger, is seized by the forceps and forcibly pulled down. It can at first be caught in part by a strong-toothed forceps ; or better, a deep incision perpendicular to the largest axis of the tumour is practised ; each of the lips of the section, or at least one of the lips, is seized as tightly as possible by a strong-toothed bent forceps. The part lying below the forceps is cut off. Before taking away the first forceps a second is slipped above the first, a fresh part of the fibroma is grasped, the scissors or the bistoury cut the parts lying beneath the preceding forceps, so with the aid of the forceps, of the bistoury, of scissors, we cut off bit by bit a part of the tumour.

“Very often the manœuvre is simplified, the myoma does not bleed, and the use of the forceps can be turned to seizing and pulling down the parts of the tumour. The scissors and the bistoury cut the myoma above the portion grasped by the forceps. The removal is continued alternately on one or the other part of the tumour. As the operation proceeds the traction performed in each grasp of the forceps—with forceps with lip and flat bit—allow of removing more voluminous fragments. These are sometimes of the size of a filbert, or as large as an apple. The removal of certain myomas is simple, each traction allowing of the removal of a large fragment. These fragments are formed of a hard tissue, absolutely bloodless. The operation might be done bloodlessly (*à blanc*), if it were not necessary to free and to make a section of the cervix of the uterus. The operation lasts from half an hour to an hour. The operator then proceeds to search for other fibromas, which he removes in the same manner ; and if he has to remove so large an amount as to render the uterus useless for the future and dangerous for the present, he should perform hysterectomy in the same manner.

“FOURTH STAGE.—*Toilet of Uterus—Resection—Sewing up of Cervix*.—As soon as the tumour is removed a large cavity is formed communicating with the uterine cavity. Its sides bleed ; all bleeding points are seized with forceps, to the number of 12, 15, 20. The use of the forceps is not performed blindly. Small

sponges on sticks are used to dry the walls and discover the bleeding points. The last part of the operation constitutes the toilet of the field of operation, which should be carried out with care. The patient should not be exposed to the least hæmorrhage; the smallest clots of blood should be removed; they ought not any longer to remain; they are a fruitful cause of septicæmia. Pledgets of iodoform are introduced between the forceps. The forceps may be removed in from 36 to 48 hours after the operation. When hæmorrhage is little to be feared, and when it is of small amount, the lips of the cervix are sewn together."

Having assisted M. Péan at several of these operations, both in hospital and private practice, I can vouch for the extraordinary skill which he exercises in their removal; and by his rapid and dexterous management of bleeding points, there is only an ounce or two of the blood lost during the operation. It is, in fact, one of the most extraordinary and brilliant operations I have ever seen.

#### FIBRO-CELLULAR TUMOUR OF CLITORIS.

Dr. RIDLEY: This growth was removed from a woman 41 years of age. It was springing from the situation of the clitoris, with which without doubt it was connected. It had been growing for five years, and latterly caused her great inconvenience from its weight. The operation presented no difficulty, the vessels were numerous but of no great size. Patient recovered rapidly, and resumed her household duties within the month. Microscopically the tumour consists of a delicate network of white fibrous tissue, arranged in undulating filaments and bands, in the midst of which stellate, spindle-shaped, oval, and round, fully developed cells are found. In parts a considerable amount of elastic tissue is present.

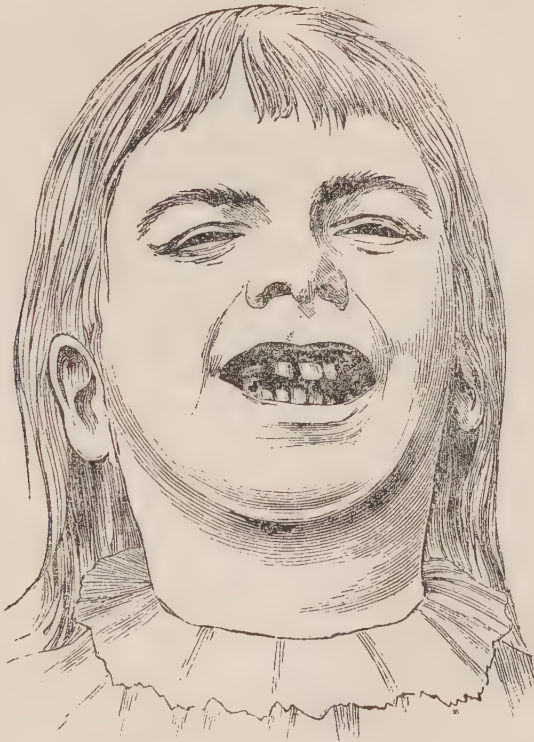
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## REPORT OF A SECOND CASE OF CLOSURE OF THE JAWS SUCCESSFULLY TREATED BY EXCISION OF A CONDYLE.

By FREDERICK PAGE, Honorary Surgeon to the Royal Infirmary, Newcastle-upon-Tyne; Examiner on Clinical Surgery, University of Edinburgh; Member of the Clinical Society, London.

A fair-complexioned, delicate-looking girl, aged nine years, was admitted into the Royal Infirmary under my care, last February, with fixation of the jaws from bony ankylosis of the right temporo maxillary articulation. When two years old the child suffered from a second attack of measles, followed by profuse and long-continued discharge from the right ear. Six months after "a gradual closing of the mouth was noticed. For the last six years there has been little or no motion of the jaw." The following woodcut shews patient's condition on admission. The jaw was fixed in the position shewn.



Two years ago an attempt was made to force the child's mouth open, but it was not successful. It was proposed, and under the consideration of the child's parents, that the incisor teeth should be cut away level with the gums, so as to facilitate the introduction of food into the mouth.

On March 5th the lower jaw was exposed on the right side by a single semilunar incision, rather more than an inch in length, a little below the zygoma. The condyle was considerably absorbed, and the jaw was firmly welded to the skull. With a chisel and mallet a section of the bone was made, running obliquely downwards from the centre of the sigmoid notch. Then the connection with the skull was by the same means severed, and the portion of bone, about a quarter of an inch, thus separated, removed. The mouth could be at once opened. Very little bleeding accompanied the operation. For some days the right eye could not be closed entirely, but there was never any other indication of paralysis. The wound healed rapidly, and the child seemed to suffer but slight inconvenience from the operation. The woodcut below was made from a photograph, taken seven months after the operation, and shows the extent to which the mouth can be opened now.



The child can chew easily any kind of food. It is somewhat singular that within so short a period a second case of this kind should have come under my observation. The disease is undoubtedly rare, and I feel much indebted to Dr. Gibb for his kindness in placing the child under my care, and thereby affording me an opportunity of showing you a second case of closure of the jaws successfully treated by excision of a single condyle.

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## NASAL OBSTRUCTION.

By WM. ROBERTSON, M.D., Surgeon, Throat and Ear Hospital, Newcastle.

The causes of nasal obstruction, to which I should like to allude, are the following, adenoid vegetations in the post nasal space, the various forms of nasal polypi, enlargements of turbinated bodies and septal spurs.

There can be no question but that adenoid growths are by far the most serious causes of nasal obstruction with which we have to deal, giving rise, as they do, not only to grave constitutional states, or paving the way to such, and also often determining the most grave disasters to hearing. Occurring, as they do, at a very early age, they impair vitality when this is not vigorous, and render life miserable to child and parent alike. It will be found on close observation of numbers of cases, especially in infancy, that preceding, perhaps, the mischief in the pharyngeal vault very evident enlargement of turbinated bodies is present, rendering nasal respiration difficult or altogether impossible; ventilation of the nasal spaces and pharyngeal vault is imperfectly affected, hearing is imperilled, and vitiated atmosphere and discharge explain the occurrence of chronic inflammation, with œdema of the mucous membrane of the vault, and the subsequent development from it of these growths. Their structure in nowise differs from other similar offshoots from chronically-inflamed mucous membrane, except, perhaps, that of all they are the most vascular. The slightest touch with the finger produces hæmorrhage, and one has but to examine their structure to understand this. Large thin-walled veins are seen throughout. The extent to which the vault is invaded by this growth varies; frequently it completely fills the vault, so that only the septum anteriorly can be made out; but, less or more, the irritation it keeps up in the space must be borne in mind if the safety of neighbouring structures is to be considered. Apart from the well-known physiognomy of the disease, which is often not, however, present in cases where the vault is seriously involved, I rely upon aural appearances and symptoms. Impaired hearing, retracted drum-heads, and enlarged turbinates point the way of observation; while in youth chronic suppuration from the middle ear is invariably accompanied by adenoid growths. On examining from the mouth the palate will be found deficient in its natural movements, and generally granular pharyngitis is present.

To any one who has watched a little patient suffering from these growths asleep at night, for hours at a time, the desirability of the operation is apparent. The struggle for breath is most distressing, for it would appear that Nature will have it that nasal

respiration must be effected. Thus the patient goes on in this way until suffocation is almost produced, and he awakes in a fright, it may be with a scream, and commences to cough. Vitiated secretions are also poured out into nasal and post-nasal spaces, which adds to his embarrassment: thus nights are disturbed and sleep is always imperfect. As time goes on the constitution begins to suffer from this cause, no matter how vigorous otherwise the individual. Pale looks and a thoroughly exhausted frame render the little patient liable to any blight about. Scarlet fever, measles, diphtheria, and typhoid readily seize upon such a plant. Remove these growths, and the patient rapidly springs ahead.

The operation for the removal of these growths has no right to be looked upon as of a serious nature, nor is any anæsthetic required beyond the use of cocaine, where the patient is submissive. I have again and again found out on inquiry of the patient that it is comparatively painless even without cocaine. Chloroform is by no means without risk in such cases. Hæmorrhage, although not great in amount, yet is dangerous from the fact that it comes in a rush on the excision of the growths, due to the largely dilated thin-walled veins cut through during the operation. Thus the child may rapidly succumb, through blood rapidly entering the larynx, under narcotism.

The instrument I use is Schech's. First inserting the finger and marking the site of growth, the forceps are slipped in, closed, and the growth brought out. Several times this is done, until all is extracted. The operation not being so very painful, no hesitation need be felt in clearing the space at one sitting. Of the ring knife and the artificial nail I have little experience. With these it is perfectly conceivable that the lateral walls of the space can be injured, and possibly the lips of the eustachian tube lacerated. The same objection cannot be made to the use of the forceps, which, besides, offers no sharp edge on introduction, and occupies less room than either mentioned.

Immediately after the operation the patient's head can be held over a basin, to allow of the blood to drain through the nares for a minute or so, when the hæmorrhage ceases, not to return, so far as my experience goes. No very special after treatment is required, but that must be persistent, and that is douching the spaces, nasal and post-nasal, with ex. gr. salt water. Constitutional reaction is generally rapid and satisfactory, while aural troubles quickly subside. The effects of the operation are usually over in two or three days, during which the patient may stay in the house, or, if delicate, in bed.

In a paper read by me last year, I touched upon what I considered the causes, principally unsanitary, tending to produce wide-spread catarrh or chronic inflammation in the upper air



passages, and have seen no reason since to depart from these. I also observe that in papers by other authors much the same opinion prevails.

As the patient advances in years, development of pathological structures of a very similar nature takes place, now in the nasal passages for about the age of 17 years adenoids disappear, although not the chronic inflammation of the mucous membrane of the vault. After that age, for the most part, the various forms of nasal polypi are met with. It may be that the cause of the disappearance of the adenoids is coincident with freer (though yet imperfect) nasal respiration as age advances. Alongside of polypi chronic inflammation of other parts of the mucous membrane of the nasal spaces is invariably present; it may be more or less localised. It often requires careful search, along with exact anatomical knowledge, to determine whether or not polypi are present, and certainly the search for such ought to be made where symptoms point to involvement of the upper air passages. The nares have to be examined both from the front and from the post-nasal space before the mind can be at rest.

Of late years only has the true significance of the presence of polypi been made out. The respiratory troubles in the case of polypi inflicted upon the adult are quite as proportionate as those of children suffering from adenoids. It is not my purpose here to enter into minutiae of detail. Speaking generally, the symptoms of polypi are impeded respiration through the nose, asthma, and in some cases a peculiar sensation in the throat, where to all appearances no lesion exists. Increased flow of thick secretion from the nares, anteriorly and posteriorly, is common; insomnia in all cases; often palpitation; frequently cough. Such, briefly, are the prominent symptoms. There are others of a dyspeptic character, but which seem to me to be only exhaustion due to imperfect respiratory action. Irritative conditions in the larynx, found also with adenoids, exist; deafness, when polypi protrude posteriorly and block eustachian tubes, &c.

I have repeatedly found the throat symptom I refer to associated with small polypi blocking up the posterior nares. Of the dependence of asthmatic symptoms on the presence of polypi in the nares I have no doubt. Three or four pronounced cases of such have come in my way lately, but time forbids me mentioning them in detail. Shortly, on the removal of several polypi, in each case the cough and early morning asthmatic attacks disappeared. In one case, after removal of the growths, and when all chest symptoms had subsided, I had to treat some remaining granular pharyngitis with the cautery, which, strange to say, brought back the asthma in full force. This, however, subsided as the irritation in the pharynx disappeared, and now the patient is in perfect health and gaining in weight.

If it be borne in mind that the essential condition underlying and preceding the formation of polypi is a chronic hypertrophic inflammation of the nasal mucous membrane, and the length of time that this condition may have existed before the case presents itself, then we are prepared to find the conditions regularly met with. In a well-extracted polypus all the conditions, from slightly chronically-inflamed mucous membrane to perfect polypoid structure, can often be traced. Near the root, in the solid, fleshy part, gland and connective tissue structures, and in the soft, jelly portion, widely-meshed areolar connective tissue, holding cells and serum-albumen, and permeated by large thin-walled veins, which account for the sharp bleeding on extraction. The surface is covered by nasal epithelium. Granted a loose, toneless, inflamed mucous membrane and a flush of blood from irritants, then it is easy to suppose a budding of parts, which commenced leads on to polypus. Gravitation, vacuum from imperfect nasal patency, increased nutritive supply, blowing the nose, &c., explain its further growth. The situations from which the ordinary mucous polypus springs are now known. For the most part they arise from the convex upper surface of middle turbinated bone, and also from roof and side walls of nose; never from septum. A very considerable growth, and one frequently met with, is the result of chronic hypertrophic inflammation of anterior extremity of middle turbinated bone. I have also seen similarly-constructed growths depending from lower surface of middle bone far back in nares. A bud of myxomatous tissue is often noticed here and there over such growths, drawn out evidently by suction in the several respiratory acts.

I can also shew you growths of a similar character snared from the anterior and inner surface of inferior turbinated bone as large as a grape. It would be interesting to trace the process of development of this growth, which is evidently on the same lines as those preceding, but must now refer to treatment.

There are several ways adopted in the treatment of nasal polypus of which I need not take note. That which has the most to commend it is certainly extraction by cold snare, under the influence of a 20 per cent. of cocaine thoroughly applied. With this you have perfect anæsthesia, or nearly so, and the active intelligence of the patient to aid you in many ways. Next, a good penetrating light (Welsbach's patent good) and a suitable speculum (Lennox Browne's). So far I have not failed in any case presenting itself, with the help of McKenzie's snare, and some have been trying cases, where deflected septa, and awkward position of growth were present. With this instrument I have taken away at one sitting from ten to twenty uninjured growths. In one case at three sittings I have extracted thirty polypi. In this last case previously chloroform had been given four times.



during operation, which was always attended by dangerous bleeding, and very unsatisfactory results as regards clearance of polypi. I need only refer to the use of forceps but to condemn it. The growths are crushed, mucous membrane lacerated, and a general chaotic condition ensues, which is altogether unsurgical. The slow use of the snare controls hæmorrhage, and you can go on from polypi to polypi with a clear field of action in sight until the last is dealt with, and with as little hæmorrhage as from a cut finger, and positively no after hæmorrhage and very insignificant after reaction. In the case of hypertrophies the snare must be worked slowly, and some styptic applied to pedicle. It is a matter of importance that as much of the thickened mucous membrane pedicle be extracted as possible. The cicatrix that ensues is strong, and braces up the lax tissue around. On examining the scars afterwards, healthy mucous membrane is often observable, an indication that there has been little if any so-called necrosing ethmoditis at the site. Polypi protruding into post-nasum can often be drawn down into the pharynx, and the snare applied, while those far back can have the wire adjusted over them by the finger in the post-nasal space. In some cases where these are far back, and the passage narrow, observation must be made as to their site with the post-nasal mirror, and a cautery point introduced cold under view. The current is then let on and they are destroyed.

A most important point in the after treatment is thorough cauterisation of the stumps of polypi with galvano-cautery or chromic acid, the former being generally preferred.

After two or three recurrences their number begin rapidly to decrease. The larger the surface extraction the larger the cicatrix resulting, and, therefore, the more extensive the remedial action of such, until little unhealthy mucous membrane from which polypi can grow, exists. Hence the desirability of not merely severing the pedicle, but also of the effort to take away as much thickened mucous membrane as possible. Along with the polypus, a piece of bone extracted at same time has not so much to do with the after result. Subsequent cauterisation braces up the loose baggy mucosa.

Chronic rhinitis, or hypertrophy of the mucous membrane, especially of that over the lower turbinated bone, is the next point I wish shortly to deal with. This, which often increases to distinct tumour formations, large enough to block up inferior meatus, and press upon the septum, is an important factor in producing widespread symptoms. Such growths become so considerable that they can be caught and snared. Oftener, however, the condition is not so pronounced, but consists of a uniform smooth turgid swelling of the mucosa along the length of the lower turbinated bone, and which can be indented with a probe,

and dispersed almost with a strong solution of cocaine. Well marked neuroses arise from this condition, resembling such as have been described in connection with polypus, and need not be again alluded to.

The treatment for this form of nasal obstruction is either the galvano-cautery point, or chromic acid with the aid of cocaine. In the majority of cases the most satisfactory effect is produced on the symptoms all along the line—cough and constitutional exhaustion produced by the obstruction disappear.

It remains for me now to touch upon osseous offshoots or spurs from the septum, three specimens of which I can shew you, recently removed from three separate cases with good results. These often occur alongside of chronic rhinitis, and complicate deflexions of the septum. Cocaine on both sides of the septum, in 20 per cent. soln., is effective in minimising pain. I have found Bosworth's saw a most handy instrument in this condition. These spurs, when they attain to any proportions at all, more especially when in association with enlarged turbinated bodies, as a matter of necessity must be removed. Cocaine very materially aids operative endeavours by contracting other nasal structures and opening up passages. When spurs exist far back the operation is somewhat more complicated; but if they are large the result well repays any extra trouble in their removal.

#### POLYPUS AND ASTHMA.

Mr. R. D., Ryton, æt. 70, presented himself 26th September, 1888, complaining of nasal symptoms (right side) for two years. Slight wheezing in the chest for one year. He referred besides to feeling of fullness in head, dyspnœa, especially at night. Auscultation and percussion of chest revealed nothing abnormal. On examining chest several tumours were discovered, and on touching these loud borborygmi were heard, which ceased, and did not recur after examination of nose. Watery eyes; complained of such last summer.

October 2nd.—Polypus removed, which was a fleshy polypoid growth from anterior extremity of right middle turbinated bone.

October 4th.—A mucous polypus removed from middle turbinated bone, higher up than former, rendering breathing freer.

October 5th.—On examining inferior meatus another evidently large polypus detected, which, on removal, was found to be as large as a grape. Along with it a fleshy mass, with piece of bone attached, came away from the lower aspect of middle turbinated bone.

November 6th.—Patient represents himself as feeling now much relieved, more especially from chest symptoms. His eyes give no further trouble, and the fulness in head and giddiness previously



complained of have disappeared. Respiration through nose is free, and all discharge has ceased.

Mr. M. R., æt. 51, Brockley Whins, married five years, has complained of asthma for 20 years, generally worst during the months of June, July, and August; most free from symptoms in winter during frosty weather. Has had gathered throat once or twice; dryness in throat accompanies attacks of asthma. On presenting himself, September 17th, 1888, sonorous rales could be heard over both lungs, posteriorly and anteriorly, with prolonged expiratory murmurs. Percussion normal; frothy expectoration. The attacks generally began in the early morning, and lasted for an hour or two, and were, judging from his description, of a true asthmatic character. Heart normal to auscultation, and percussion; other organs healthy.

The patient made no reference to any nasal obstruction; but when an examination of the nares was instituted, the following conditions were noticed:—Both middle turbinated bones were enlarged, and pressed upon septum. The anterior extremities of each were largely hypertrophied into form of fleshy polypoid masses. Several mucous polypi in left nares, which, when roughly handled with probe, at once produced in patient his old sensations of asthma—flushed face and constriction of chest, and explosive cough. Polypi removed.

September 24th.—Three asthmatic attacks since operation, but none for last four days. Examination of chest shews it free from rales, and everywhere normal to auscultation and percussion. Patient states that he has brothers and sisters who wheeze in summer.

October 1st.—Two polypi discovered in right nostril; one removed. Since last operation distinct remission of chest symptoms. On touching newly-discovered polypus chest distress elicited.

October 6th.—No cough; no spit. Appetite good. Sleep throughout night uninterrupted by wheezing attacks; but at 4 a.m. he awakes as usual, but has no asthmatical attacks.

October 10th.—No wheezing until this morning, when he slightly suffered at 4 a.m. Lateral bands of granular pharyngitis treated by cautery.

October 20.—The application of cautery evidently aroused old neurosis, since for two days after its application patient suffered from asthma severely; but since then no return; no cough; sleeps throughout night well; has a feeling of vigour, and an excellent appetite.

November 4th.—Only one morning slight wheezing complained of. Feels very well, and has resumed his duties.

ENLARGED TURBINATED BODY IN LEFT NARES—LARGE SEPTAL  
SPUR IN RIGHT NARES.

Mr. E., Chathill, presented himself, sent by Dr. Waterson, Embleton, on October 25th, 1888, complaining of tightness in throat, mucous accumulation, stoppage in breathing through nose, and shortness of breath, with frequent sighing. Right eye dim; palpitation on going to sleep at night. Loud borborygmi on examination of nose with probe. On examining nose, the left turbinated body was enlarged so as to block up same meatus, could be indented with probe, and dispersed largely with cocaine. In the right nares a large spur from the septum extended across the meatus of same side, and pressed upon turbinated bone so closely that a narrow probe could not pass. The right turbinated body under cocaine was thoroughly attacked throughout its length with galvano-cautery.

October 6th.—Patient returned, thankful for relief felt in being able to breath freely through right nostril, and requesting relief from obstruction in left nares. Under cocaine, 20 per cent. solution, I removed with the saw the spur in existence there. It measured  $1\frac{1}{2}$  in. long,  $\frac{1}{2}$  in. deep,  $\frac{3}{8}$  in. thick. Patient at once felt breathing free.

November 6th.—Dr. Waterson informs me that since operation patient has progressed favourably, with a cessation of previous symptoms. The wound is healing kindly, and respiration is unimpeded.

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## CASE OF CERVICAL HÆMATOMYELIA.

BY DR. GEORGE TAYLOR.

A. R., aged 15 years, the son of a hairdresser, had always enjoyed good health until the morning of Tuesday, 9th August, 1887. He had been removing the shutters of the shop, and returned home to breakfast apparently in the best of health, when he suddenly complained of an acute pain in the back over the right shoulder (supra-scapular region). His mother at once rubbed the part with hartshorn and sweet oil, and she noticed that when she let go his arm it dropped. He then tried to rise from the chair on which he was sitting, to lie down on the couch, when he immediately dropped on the floor. He did not complain of any pain except that in the shoulder, and his mental condition was not affected, but he complained of headache. There was complete motor paralysis of both lower limbs, of the left arm, and of the right hand, but there were no convulsive movements. All these symptoms occurred, according to the mother's statement, in less than five minutes. Examination elicited the following particulars: The family history is good. There is no history of traumatic injury, nor of previous illness; neither is there any history of exposure, unless the following can be counted as such: the boy walked to and from Fence Houses (in the sun), a distance of eight or ten miles, on the Sunday previous, and the mother states that he had a habit of sitting by the shop door in the sun. In his general appearance he is strong and healthy-looking.

**SYMPTOMS.**—As regards the *brain*. There has been slight headache at first, which has passed away. The mental powers are not affected, and the patient amuses himself by reading the newspapers. There is no implication of any of the cranial nerves, and no difficulty in speaking or swallowing.

*Spinal cord and nerves.*—There is pain and slight tenderness on pressure over the sixth and seventh cervical spines, but no pain anywhere else along the spine, either on pressure or on percussion. There is still slight pain in the right supra-scapular region, but this has greatly subsided. There is complete motor paralysis of both legs, the left arm, and of the fingers of the right hand, with partial paralysis of the remainder of the right arm. There is sensory paralysis of the same parts, but this is not complete. Painful impressions are felt slightly all over the trunk and extremities; the reaction time is increased. There is a slight sensation as of "pins and needles" in the affected parts. Touch is not felt anywhere over the trunk or extremities, except slightly over the back of the right arm and shoulder. There is no reaction on testing the reflexes, superficial or deep. The urine and fæces are

passed involuntarily and unconsciously, but there is no irritation of the bladder and no priapism.

*Respiration*.—24 per minute, frequently interrupted by sighing (? irritation of phrenics).

*Circulation*.—Heart's action normal; pulse 66, full and regular.

*Temperature* 96·8.

*Digestive system*.—Tongue coated, rather dry; appetite bad; great thirst; bowels constipated; abdomen distended and tympanitic, with slight tenderness on pressure.

**TREATMENT**.—He was given a mixture containing iodide and bromide of potash with digitalis, which was afterwards replaced by ergot. Powders of calomel and jalapæ co. were also given. At first sinapisms, and afterwards emplastr cantharis, was applied along the upper part of the spine. The patient remained in the condition described until the 15th, when he was found to be expectorating a considerable quantity of light-coloured mucus and shreds of dark-coloured blood—casts of the smaller bronchi; these were expectorated separately from the mucus. There was dulness over the lower part of the upper lobe of the right lung in front, but no pyrexia; pulse and respiration normal. Examination of the blood-shreds shewed them to be composed of epithelium, granular debris, blood corpuscles, escaped blood pigment, and micrococci. 16th.—Expectoration considerably diminished. Bowels operated, and motion passed in bed. Tache cerebrale observed to-day. This had not been looked for before. The skin has a rather flaccid appearance, but is otherwise normal. The abdomen is distended. No response to reflexes; the interscapular reflexes were specially tested. Temperature 97°. Up to this time there has not been any change observed in the symptoms relating to the nervous system. 17th.—Very much worse this morning. The face has a pinched aspect. The patient takes no notice, but answers rationally when spoken to. Respiration 26. The inspirations are long drawn and gasping, with dilatation of the alæ nasi and marked heaving of the thoracic and abdominal walls on the right side, the patient lying on the left. The expirations are short and abrupt. The expectoration of blood has returned. The pulse is 78, and weak. Temperature 97·6°. Vomiting came on to-day, and persisted in spite of treatment. The respiration gradually became worse, and he died at 8 p.m., retaining consciousness to the last.

I failed to get either a consultation or *post-mortem*. I had, therefore, to form my diagnosis entirely upon the symptoms observed. The reasons for my diagnosis were the following:—

1. The functions of the brain were unaffected, so that cerebral lesion is excluded.

2. The abrupt onset, the stationary nature of the symptoms, the absence of "girdle sensation," and the sub-normal temperature, taken together, exclude myelitis.



3. The absence of convulsions, or other signs of irritation of the nerve roots, excludes hæmorrhage into the membranes of the cord.

4. The diagnosis is rather confirmed by the age of the patient (15) being about the middle of the most common period, and the hæmorrhage into the lungs suggests a diseased condition of the general arterial system as a possible cause. The partial exemption of the right arm localises the lesion in the brachial plexus. The fact that the sensory paralysis was slightly less marked than the motor might be accounted for by supposing that the hæmorrhage (which we are told generally takes place in the grey matter) was greater in front than behind, as it was evidently greater on the left than the right side.

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## ADDENDUM TO TRANSACTIONS OF OCTOBER MEETING.

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The following paper could not be published in last Transactions owing to the time required for the preparation of the plate which illustrates it.—J. L.

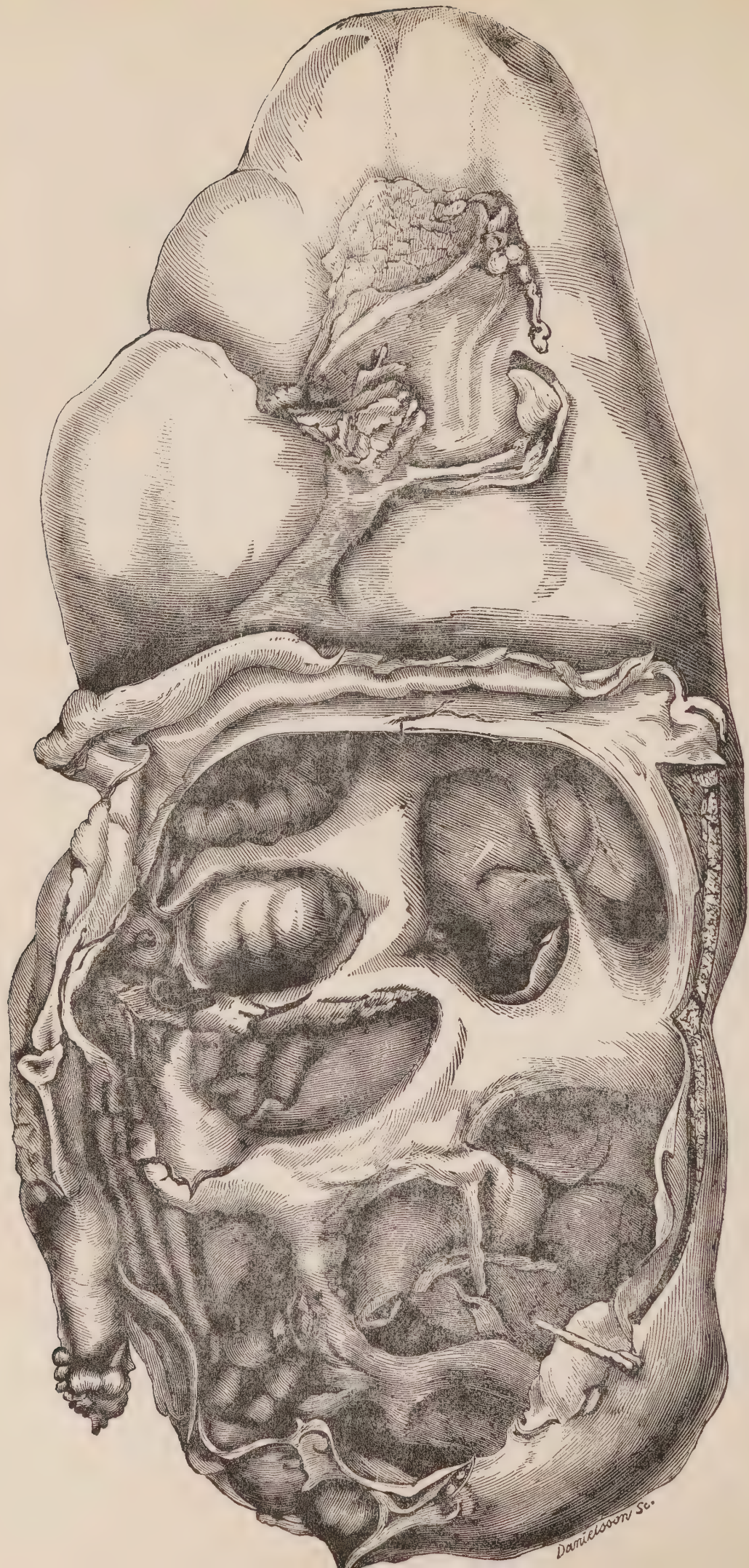
### CASE OF WATER-LOGGED KIDNEY TREATED BY ASPIRATION, DRAINAGE, AND FINALLY BY REMOVAL OF THE KIDNEY. FATAL RESULT.

By FREDERICK PAGE, Honorary Surgeon to the Royal Infirmary, Newcastle-upon-Tyne; Examiner on Clinical Surgery, Edinburgh University, &c., &c.

M. C., a general servant, aged 21 years, was admitted into the Royal Infirmary, Newcastle-upon-Tyne, March 3rd, 1888, suffering from what was supposed to be an ovarian tumour. She stated that ten years ago, while at school, she fell over a form and injured her right side. She was in consequence confined to bed for some weeks with an acute attack of illness, which she was told was an inflammation of the side. Nothing more definite could be learned of this illness. When able to get about it was noticed she had a swelling about the size of an orange a little below the short ribs on the right side. During the following three years her health was so delicate that she was unable to do much. The swelling in the side never disappeared, though it varied from time to time in size; but patient could not state that its size varied with the amount of urine she passed. Five years after the accident, at the age of sixteen, she went out as a general servant; and, with the exception of frequent attacks of vomiting and headache, enjoyed fairly good health, and was able to do hard work. The swelling latterly increased considerably; and it was in consequence, more particularly, of the inconvenience she experienced from its size that she sought advice. Upon examination, the belly was seen to be very much enlarged. The right side was occupied by an oval tense tumour, neither painful nor tender, extending into the pelvis and under the ribs, but not much beyond the middle line. It was dull on percussion, and evidently due to encysted fluid. With an ordinary hypodermic syringe a small quantity of colourless fluid was drawn off. It contained no hooklets. On March 11th six pints of clear fluid were drawn off with the aspirator. Seen in bulk it was of a pale straw colour, faintly acid, of specific gravity 1008, had no odour, and contained a trace of albumen (34 grains of chlorides to the pint) and urea, no sugar. On April 3rd nine pints of a precisely similar fluid were withdrawn with the aspirator. At this time patient was passing from 60 to 90 ounces of urine daily, closely resembling in character the fluid









drawn from the tumour, but with a specific gravity varving from 1015 to 1018. On April 19th, patient having regained her former size, the right kidney was cut into by the oblique lumbar incision, and some twelve pints of fluid evacuated. A drainage tube was secured in the wound, through which large quantities of fluid continued to flow, necessitating frequent dressing. For a few days after the operation there was blood in the urine from the bladder. Towards the end of April the wound was suppurating slightly. The urine from the bladder on May the 9th was acid, and of specific gravity 1030; patient's temperature 98; but it was noticed that the quantity of fluid flowing through the drainage tube had diminished considerably, and in a few days it ceased altogether. The tube was removed. The tumour re-appeared; and now it was both tender and painful. The temperature, too, rose to 104. With some difficulty a tube was re-introduced into the sac, and 60 ounces of fluid evacuated, with great relief to the patient. This fluid was turbid, from pus diffused through it, but still faintly acid. Towards the end of May the quantity of urine passed by the urethra had diminished to from 30 to 40 ounces daily. The patient was thin and fretful, evidently fast losing ground. On May 30th the partly-healed wound in the loin was enlarged and the kidney removed. The vessels were secured with silk ligatures. The ureter was much dilated, and it was not ligatured. No quantity of blood was lost, but the shock of the operation was very severe, and for some hours it was doubtful whether the patient would rally. During the first 24 hours after the operation 17 ounces of urine were passed; afterwards the quantity varied from 23 to 28 ounces during the 24 hours. On June 9th the patient died, the most prominent symptoms having been diarrhœa and vomiting. The mind was clear to the last. Unfortunately, no *post-mortem* examination of the body could be obtained, so that the actual cause of death, the condition of the other kidney, and the nature of the obstruction, is a matter of conjecture.

The kidney is a very interesting specimen of disease. Only part of the organ—the lower half—is dilated. The upper half is lobulated and hypertrophied, and is about the size of a normal kidney.

The annexed woodcut, by Messrs. Danielsson, from a very carefully executed drawing kindly made for me by my excellent house surgeon, Mr. W. Baigent, gives a good idea of the appearance of the kidney.

Imperfect as this case necessarily is in the absence of a *post-mortem* examination, it is still sufficiently interesting, from a clinical point of view, to be worth recording. It is probable, I think, that some urine from the right kidney found its way into the bladder; had done so more freely, but was doing so at the time



of admission only to a small and diminishing extent. The obstruction would seem to have been due to some progressing cause. After the kidney was drained the quantity of urine from the bladder diminished considerably, and its specific gravity was much higher, though the quantity passed from the lumbar wound and from the bladder together was much the same as before the kidney was cut into. As soon as the urine from the wound became turbid from the presence of pus in it—that is to say, when the wound began to suppurate—patient's health began to fail; and when the fluid re-accumulated in the dilated kidney and ureter, grave constitutional symptoms arose, relieved on the re-introduction of the drainage tube and the escape of unhealthy urine. The day the kidney was removed only 17 ounces of urine were secreted, the highest quantity passed afterwards in 24 hours being 28 ounces. This strongly suggests that the left kidney was a small one—a suspicion which the hypertrophied condition of the undilated half of the right kidney tends rather to confirm. The size of the left kidney could not be ascertained, but from the quantity of urine passed while the tumour was largest (from 60 to 90 ounces daily) there was fair grounds for the opinion that the left kidney was normal. After suppuration occurred the patient's general condition made the question of removal of the kidney urgent. Having determined to remove it, the relative advantages of the abdominal and lumbar methods had to be considered, and I chose the latter, simply because it has proved less fatal. It is a question as to whether in a similar case I should not, before removing the kidney, explore the belly with the view of ascertaining the nature of the obstruction as well as the condition of the other kidney. Such a line of practice might increase the patient's danger, and undoubtedly would, if the kidney were removed either at the time by the abdominal or subsequently by the lumbar incision; but it might lead to the removal of the obstruction, or show that the other kidney was abnormal.

Dr. HUME endorsed generally Mr. Page's views. He made an exception, however, with regard to the median abdominal incision, which, though it would be of advantage in detecting that the opposite kidney was diseased, would much increase the danger of the operation.

The PRESIDENT said he was inclined to view with favour the median incision, inasmuch as it was easier and would display the condition of the opposite kidney.

Mr. PAGE, in reply, drew attention to the frequency with which the opposite kidney was affected. In his opinion the patient died from the remaining kidney not being able to eliminate what was required of it.

# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

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## SESSION 1888-89.

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### DECEMBER MEETING.

THE THIRD MONTHLY MEETING of this Society was held in the Library of the Royal Infirmary, on the evening of Thursday, December 6th—Dr. Murphy (President) in the chair.

#### NEW MEMBERS ELECTED.

G. H. Fitzgerald, M.D., M.Ch., Ponteland.  
J. W. Leech, M.B., B.S., Newcastle.  
C. S. Redmond, L.R.C.S.I., Gateshead.

#### NEW MEMBERS PROPOSED.

E. Douglas, L.R.C.P. and S., Morpeth.  
J. Lawrence, M.D., Darlington.  
J. McCracken, M.B., C.M., Newcastle.  
J. C. Mackenzie, M.B., C.M., Morpeth.  
W. Macnaughton, M.D., Walker.  
F. W. Skrimshire, M.R.C.S., Morpeth.  
John Burdon, L.R.C.P. Edin., Newcastle-upon-Tyne.  
Francis Wm. Sinclair, M.B., South Shields.

#### VISITORS.

Dr. Charlton Bastian and Professor Annandale (an honorary member of the Society), the Examiners of the University of Durham College of Medicine, were present, and took part in the proceedings of the meeting.

The SECRETARY read the following letter from Dr. Auvard, of Paris, who was elected an honorary member at the October meeting :—



"21, RUE DE LILLE, PARIS,

"LE 23 OCT., 1888.

"MERCI BIEN, MON CHER AMI,—pour votre bonne lettre qui m'annonce ma nomination a la "Dur. Northern Medical Society."

"C'est un honneur auquel je suis très sensible. Veuillez bien exprimer toute ma reconnaissance aux membres de cette Société ainsi qu'à mon excellent ami le Docteur Murphy.

"Je publie actuellement mes travaux d'obstétrique en trois volumes et aussitôt prêts j'aurai le plaisir de vous les envoyer en remerciement.

"Bien cordialement à vous,

"DR. AUVARD."

#### TREPHINING OF THE SKULL.

Dr. ARNISON showed two patients who had undergone trephining for compound fracture of the skull. The first, a boy of 16, was admitted with compound fracture of the right frontal bone, extending from the ridge half-way across, caused by a kick by a horse. There was depression and comminution, with delirium and excitement for some time. After the operation, the pulse continued very slow, and the temperature subnormal; but the boy had quite recovered, except that he was blind of the right eye. The second was a young policeman, who had taken a man into custody for drunkenness and disorder, when some blackguard struck him from behind with, as he believed, the end of the handle of a "gibby stick," producing a sharply depressed fracture, almost like a punctured fracture. Notwithstanding such an injury the policeman stuck to his prisoner, and put him under lock and key. On his admission into the Infirmary there was an entire absence of symptoms, but, from the nature of the fracture, it was deemed safer to trephine. The medium-sized instrument was used, and the depressed bone raised, then the disc of bone was replaced entire, and a space where the dura mater was exposed was "paved" with small fragments, in the manner adopted by McEwen, of Glasgow; the pericranium was then drawn over it, and the wound closed, leaving a small tube for drainage. The patient's recovery was uninterrupted, the wound was healed except at one point, no fragment of bone had been discharged, and the site of the operation was as firm as the rest of the skull.

#### SECONDARY TREPHINING FOR INJURY.

Dr. HUME shewed a miner who had been trephined three months and a half after the receipt of his injury. On 31st January, 1888, he sustained a compound fracture of the skull on the left side while engaged in blasting, down the pit. He remained unconscious for thirteen days, and when admitted into the Infirmary in the beginning of May he still complained of the following

symptoms :—He had a constant feeling of heaviness on the left side of his head : he was dizzy in walking, with a tendency to fall to the left side. His own description of his feelings was that he “always felt drunk on that side of his head.” He was very deaf, but on careful investigation his deafness was believed to be altogether due to an attack of scarlatina in childhood. It however complicated the case, and made more difficult the decision of the question whether the sensations on the left side of the head, and especially the disturbance of balance, might not have been caused by a fracture through the petrous portion.

On the left side of the head, posterior to a line drawn perpendicularly through the meatus, and near to the parietal eminence, was a cicatrix covering a depressed area of bone the size of a shilling. This spot was very tender on pressure. In performing the operation it was found necessary to remove three trephine-disks in order to raise three pieces of depressed bone and a portion of scalp with hair attached, which was found in contact with the dura mater. During the operation a minute sinus was discovered opening on the surface of the scar, and which had at first escaped observation. The parts at the time of the operation were therefore not in an aseptic condition. Two days after the operation symptoms of inflammation set in. There were high temperature, vomiting, somnolence, and paralysis of the right arm. At the end of ten days these symptoms gradually passed off and the wound was almost healed. He shortly afterwards left the hospital against advice, and a week after his return home relapsed. After a period of improvement there was a second relapse in July with a return to unconsciousness, paralysis of the right arm, and the formation at the site of operation of a rounded swelling so distinctly fluctuating that it was punctured. It contained no pus, and was then recognised to be entirely a false hernia cerebri ; under pressure this subsided, and all the symptoms for the last time passed off. He is now comparatively well and much better than before the operation.

#### TREPHINING FOR EPILEPSY.

Dr. DRUMMOND said he was glad of the opportunity afforded by the present discussion to invite the opinion of Dr. Bastian and others upon the following question : were they justified in deciding to trephine in epilepsy from the character of the fit alone, in the entire absence of other signs of and guides to local organic cortical mischief, such as headache, paralysis, sensory disturbance, optic neuritis, scars from injury, &c. ? He raised the question, because it was a subject that had interested him much of late, and with the view of putting the matter in a definite light, he would briefly state a case that had occurred, quite recently, in his practice. A young man, aged 27, a miner, was admitted into the Royal Infir-

mary, for epileptiform convulsions. He had suffered for three years, the fits recurring every month or six weeks, though, of late, they were much more frequent—5 in three weeks. They commonly happened when asleep, though several were day attacks, when going about. His wife gave a very clear account of the fits, which repeated themselves in an unvarying manner. When the fit seized him asleep, he always awoke, being aroused by pain and cramp in the left arm. When awake at the time of onset a very distinct aura warned him of its approach. This consisted in a feeling of numbness in the left hand and wrist, which was immediately followed by a “sharp” pain up the arm, from elbow to shoulder. Then the fingers, of the same hand, became flexed, whilst the arm was stretched out and rigid: at this stage he usually fell to the ground, *and then he lost consciousness*. From the left arm the spasm extended to the face, thence over the entire body and, as far as he was able to learn, followed the usual course of an epileptic fit; the convulsive attack, which lasted a few minutes, was usually succeeded by a prolonged sleep. There was no definite post-epileptic paralysis, though the left arm was stated to be stiffer than the other for a little time after the attack. There was no history of syphilis or injury. There was an absence of headache (local or general), optic neuritis, and vomiting. The grasp of the left arm seemed to be slightly deficient, but this varied so much that it was regarded as a post-epileptic phenomenon. The knee-jerk was feebly marked and equal. No defect of vision. He made almost constant complaint of a feeling of numbness and cramp (without spasm) in the left arm, an exaggeration of which sensation immediately preceded a fit. This annoyed him greatly, as he lived in constant dread of an attack: indeed, the patient believed that he frequently warded off a fit by rubbing the hand and arm. It would be seen that, in this case, there was almost an entire absence of what might be called localizing symptoms, nor was there much to suggest organic brain disease; nevertheless, he persuaded his colleague, Dr. Hume, to trephine, and in suggesting this line he was guided by the local origin of the fit, following a well-marked unilateral aura, and the deferred loss of consciousness, added to which was the fact that the attacks were increasing in number, in spite of large doses of bromide of potassium. Dr. Hume explored the whole of the arm-centre on the right side, exposing the convolutions on both sides of the fissure of Rolando; but nothing that could be dealt with surgically was met with, and it was deemed unwise to excise a portion of the cortex, though he (Dr. Drummond) was sorely tempted to do so. The wound healed rapidly, without a bad symptom, except that on the sixth day after the operation the left arm was observed to be paralysed, a fact that was taken to prove that the arm centre had been carefully selected, as the face and leg on the same side



remained undisturbed. Within a few days the paralysis passed off. He regretted to say that the fits, after remaining away for a few weeks, had returned, so that the patient was in much the same condition as before the operation. The point on which he desired an expression of opinion was: was an exploratory operation justifiable when the only guide was the character of the fit? For his own part he thought so, and he would be disposed to recommend the operation again, under similar circumstances.

Dr. CHARLTON BASTIAN: Such symptoms *do* point to a functional affection or to an actual lesion of the so-called motor area. Fits of the character described would not, however, justify an operation unless they were very severe or extremely frequent. It may occasionally happen that an organic lesion exists even in the absence of localised pain and of optic neuritis, and it is in face of this possibility that an exploratory operation in severe cases sometimes becomes justifiable. This is the view I should take. The expediency of excising a functionally faulty centre in the absence of organic disease, in these unilateral fits of cortical origin, is more doubtful. In certain cases where operation is performed there may be no morbid changes seen on the surface of the brain or in the membranes exposed, and yet there may be a sub-cortical growth which irritates the efferent fibres issuing from the cortex, and this gives rise to much the same grouping of symptoms as would be produced by a lesion of the cortex itself.

Again, there is the possibility to which I have already referred, that we may have to do, not with organic disease, but with mere functional disease associated with periodic instability of some part of the cortex in the Rolandic area. It is probable that such cases exist, because even where an organic lesion is present in this situation, giving rise to one-sided fits of the kind now under discussion, we must suppose that some similar instability is produced by the presence of the growth and its accompanying hyperæmia, which from time to time leads to the recurrence of one-sided convulsions. The organic lesion is continuously existent, but the fits are only occasional, and must therefore be due to some proximate occasional cause.

In the case of Dr. Drummond, his opinion was that there was either—

- (a) A sub-cortical lesion; or
- (b) An epileptic condition—*i.e.*, a functional perversion in the cortex without structural change.

In reference to the patient shewn by Dr. Hume, he would call the attention of surgeons to the fact that they often had under their care cases like the present one, with limited lesions of the cortex accompanied by paralysis of the arm of the opposite side. He would ask them to direct particular attention to the question

whether in these cases there was or was not a loss or impairment of "muscular sense" in the paralysed limb. This question was often difficult to determine in the absence of impairment of other modes of sensibility, but he regarded it as a point of great importance. One wishes to know whether, in these cases, when the paralysed hand and fingers are placed in different positions, the patient can—his eyes being closed—define their position, or whether he can estimate differences in weight as nicely as with the non-paralysed hand. It was a fact, that in certain cases, patients with cortical lesions in the so-called motor area, could not do so. The reason why he regarded this point as of extreme interest and importance was this: whilst he did not doubt the accuracy of the results obtained from experimental lesions of the cortex, he did not, for these reasons, admit that there were motor centres in the cortex. These centres, in his opinion, are *not* motor but sensory centres of a certain type. They are concerned, he believes, with the registration of the least conscious of all sensory impressions, namely, those of the muscular sense. Such sensory centres are most intimately concerned with the initiation and guidance of voluntary movements. From them fibres emerge along which volitional stimuli pass, which go to stimulate the real motor centres in the medulla oblongata and spinal cord.

According to Ferrier lesions of the motor areas of the cortex should entail no loss of muscular sense in the paralysed limbs; according to my view, on the contrary, with such lesions there should, in addition to paralysis, be loss or marked impairment of the muscular sense. The presence or absence of this endowment is therefore the touchstone by which alone we can decide between the rival theories.

Horseley had excised the cortical centres and found that loss of muscular sense followed in some cases, but more evidence was needed.

He would apply to Surgeons, therefore, as well as to Physicians, to remember this interesting point, and in cases of local lesion or of excision of parts of the so-called motor area of the cortex, to test for the presence or absence of the muscular sense in the paralysed limbs, and to test with great care, because this is a kind of investigation which is always beset with difficulties.

Dr. OLIVER said: I think there is much in the view that Dr. Bastian has put forward that commends itself. We are, perhaps, too much inclined to regard the cortical areas around the fissure of Rolando as exclusively motor. It is no doubt true that if these areas are stimulated motion occurs, but that is simply another method of putting into action certain areas, the normal stimulation of which might be the reception of sensory impulses, such for instance as those connected with the "muscular sense." All

movement, as Dr. Bastian has told us, is in some way or other connected or associated with sensory impressions. If we do not accept his hypothesis, then we must regard the *will*, the seat and operation of which we know nothing at all about, as originating changes in those cortical areas, out of which movement in some way or other arises. In regard to trephining in traumatic epilepsy, I am pleased to inform the members present that the boy whom I exhibited to the Society, nearly two years ago, upon whom Dr. Hume operated, still continues in good health. He has had one or two fits, but several months now elapse without there ever being an epileptic convulsion.

Dr. GOWANS asked whether Dr. Arnison had made any effort to preserve the periosteum? Dr. Macewen, of Glasgow, had expressed the opinion that the action of the periosteum was of little value.

Dr. ARNISON said that during the operation the periosteum was peeled off, and that it was afterwards drawn forward again.

Dr. HUME, in reply to Dr. Bastian, said that the muscular sense in his patient had not been tested.

#### EXCISION OF ASTRAGALUS.

Dr. HUME also shewed a young man on whom he had performed the operation of excision of the astragalus. The right foot had been severely wrenched in a pit accident, and the astragalus dislocated forwards. A cast was exhibited shewing the deformity of the foot, and also the way in which, on any attempt at walking, the whole foot was displaced outwards so that the internal malleolus came in contact with the ground. After the operation the wound healed slowly but steadily, and the patient had now a foot on which he could walk, and which was daily strengthening and becoming more useful.

#### SUBCLAVIAN ANEURISM.

Dr. OLIVER: This man, who is aged 52, unmarried, and a labourer, first came under my care in the early part of June of this year. At that time he complained of pain in the right shoulder and of a "beating" on that side of the neck. He has drunk heavily, but beer chiefly; has never had rheumatism nor gout; had gonorrhœa twenty years ago; has never had any signs of syphilis. For the last few years has been very much exposed as regards weather, and at times has had rather scanty food. His father died at the age of 56 from the bursting of a blood vessel; the rest of the family history is good. Patient has lost considerably of flesh of late. When seen for the first time his one complaint was of pain in the right shoulder running down to the elbow. It was of an excruciating aching character, always worst at night, and prevented him from sleeping. There was no difficulty of breathing or of swallowing;



no cough, no expectoration, right pupil smaller than the left, and no undue distension of jugular veins. A round mass about the size of a hen's egg could be seen and felt pulsating above the right clavicle, and over it a loud systolic blowing murmur followed by a diastolic thud were heard—the right arm beyond being at times numb and cold, and with a degree of loss of sensation in its outer and upper two-thirds exhibited nothing remarkable. The right radial pulse felt weaker than the left, and beyond a reduplication of the second sound over the mitral and accentuation and reduplication of this sound along with a murmurish first over the aortic area, the heart's sounds were perfectly healthy. There was no history of an injury to the shoulder and no history of excessive strain. Under the employment of large doses of iodide of potassium, 100 grains, thrice daily, patient lost all his pain, became more cheerful, but the pulsating tumour never underwent any appreciable diminution in size. On the 23rd August he left the Infirmary at his own request, and when outside he returned to his work, at which he had to shovel away large quantities of clay. He worked hard, chiefly using the right arm, and frequently throwing his spade, &c., over the right shoulder. He also drank freely of beer. Towards the end of September the right arm became extremely painful, and he gradually, but, as you see, very completely, lost all power in it. He cannot lift the arm, although he can flex one or two of the fingers. In this condition, viz., of paralysis of right arm and excruciating pain in right shoulder, he was readmitted on Oct. 9th. The tumour above the right clavicle was now seen to be much larger, and felt much harder and less pulsating than before. A degree of dulness was now noticed under the clavicle, and here, as also over the tumour and down to the aortic area, could be heard a loud systolic murmur. I was inclined to regard the increased size and hardness of the tumour, and the extended line of conduction of the murmur, as indicating not only that the aorta had undergone dilatation, but that the tissues around the aneurism had become infiltrated with inflammatory exudation material. There was at that time a rise of temperature, but as it was not maintained any idea that suppuration of the sac had taken place was soon dispelled. Under the use of iodides the hardness of the tumour has greatly disappeared, and the pulsation has returned. The surface temperature varies on the two sides of the neck, that of the right being from one to two degrees higher than the left.

For one reason perhaps more than any other I bring this patient before the Society, and that is to ask what treatment here will give the best result. I can hope for little from iodide of potassium. Amputation of the arm is entirely out of the question. Would galvano puncture, which it is my intention to try, do anything more for the patient than simply bring about consolidation of the

sac. The nerves coming from the brachial plexus must now be in a state of inflammation and degeneration.

Professor ANNANDALE: The case had been given up by the physicians, and was relegated to the surgeons to see whether they could do anything to relieve the patient. As regards electrolysis he would not advise it. Were the case his he would first of all use means to control the hæmorrhage during any operation, and this he would do by making an incision in the middle line of the neck, and afterwards compressing the innominate artery against the sternum. He would then amputate the arm at the shoulder joint, carrying an incision upwards in the direction of the aneurism, divide the clavicle, and secure the artery on the cardiac side of the aneurism.

Mr. WILLIAMSON said that in examining the patient in the ward he had come to the conclusion that it was not possible to do anything on the cardiac side of the aneurism. With regard to galvano-puncture he would like to hear the experience of the physicians; and as to the distal ligature of the carotid and sub-clavian he thought that any one who looked at the statistics of the operation would not feel greatly encouraged to perform it. If, as Professor Annandale said, the innominate artery could be compressed through an incision, and the circulation through the sac be controlled, he would not be inclined to adopt the suggestion of amputation at the shoulder joint, but would rather be disposed to open the sac after Syme's method and secure the vessels. He was afraid, however, that the disease would be found to extend along the innominate, and so this plan of treatment would not be possible. Manipulation of the sac and displacement of the clot is so risky when a carotid artery is involved that he was not disposed to undertake it, though possibly if the patient were freely handled when he was being exhibited some such displacement might occur. In the meantime he thought that the treatment by rest and internal medication should have a good trial.

Dr. ANDERSON suggested that a photograph of the patient would be interesting and valuable, inasmuch as there were such characteristic symptoms, viz., paralysis and atrophy of certain muscles. The case was one of great interest, and seemed so far as treatment was concerned, to be one that would probably be most successfully treated by the somewhat heroic plan suggested by Professor Annandale.

Dr. BASTIAN was not prepared to give up the case to the surgeon, and would not at all consent to amputation. He would employ galvano-puncture with considerable hope of a good result. In his opinion it was a very suitable case for such treatment. In such cases he had got very good results by bringing the positive

pole into connection with small hare-lip needles, well guarded by an insulating varnish, except for half-an-inch from the point. He had passed these needles into the sac and allowed the current to run for twenty minutes. No time should however be lost, since atrophy had already taken place. Still, if the pressure were taken off, the nerves might recover, and the muscular fibres, under the influence of galvanism, might regain their power. The case was certainly as yet not a hopeless one.

Professor ANNANDALE said that his chief reason for choosing the plan he had indicated was the avoidance of hæmorrhage.

Dr. GIBSON pointed out that the fitting time for passing the patient over to the surgeon would be after the needles had been tried and found a failure.

Dr. OLIVER, in reply, agreed with the opinion expressed by Dr. Bastian.

#### CASE OF HYSTERICAL PYREXIA.

Dr. DRUMMOND said that the patient whose case he wished to bring before the Society had left the hospital cured a few days previously. He would, however, draw their attention to the temperature chart which embodied all that was of interest in the case. The patient was a young woman, aged 24, who was admitted into the Infirmary for hysterical retention of urine. During her stay in the wards she developed, in a very unexpected manner, an extraordinarily high temperature; but he was bound to say that the thermometrical record was open to suspicion. On one occasion the thermometer registered 108° Fahr., the highest point for which it was graduated, but in ten minutes the temperature fell, when the thermometer was held *in situ* by the nurse, to 98·6°. It was also fair to state that it never rose above 100° when placed either in the rectum or the mouth. He had tried experiments with the thermometer, and it was no doubt easy by friction to send up the mercury to 110° Fahr. or thereabout, but the difficulty still remained to explain, assuming that the observation was not genuine, how the patient manipulated the instrument, seeing that the nurse was sitting beside her bed when 108° Fahr. was registered. He referred to other cases of hysterical high temperature, and especially to Dr. Philipson's, which formed one of the most interesting records of the kind.

The PRESIDENT said: However difficult it may be to explain or to credit these cases of very high temperature, we are bound to believe in their existence when reported by such competent observers as Prof. Philipson and Dr. Drummond, who can be relied upon to exclude all forms of imposture, and who doubtless personally verified the remarkable temperatures they have mentioned, and besides there is on record a case of tetanus where the temperature



was  $114^{\circ}$  two hours after death, where surely no imposition could have occurred; as also a case recently recorded by Dr. Routh, where after a death subsequent to ovariectomy a temperature of  $110^{\circ}$  was registered. As far as I know, Prof. Philipson's case, where the temperature rose to  $117^{\circ}$ , is the second highest on record, but it is surpassed by the extraordinary case published in the British Medical Journal some thirteen or fourteen years ago, by Mr. Teale of Scarborough, where a lady sustained some obscure injury to the spine, and whose temperature eventually reached  $122^{\circ}$ , as testified to by some half-dozen medical men, who made frequent observations by thermometers subsequently verified at Kew.

#### CRANIAL PERCUSSION.

Dr. DRUMMOND shewed a boy, aged 12, the subject of a cerebellar tumour, and stated that he introduced the case in order to demonstrate what was to him a novel physical sign. The tumour had, he thought, induced chronic intra-ventricular effusion, and the sign to which he referred would be found, he believed, to be diagnostic of hydro-cephalus, in cases in which the cranial bones were consolidated. On percussing the skull with the finger a remarkable sound was elicited, a noise that resembled the sound emitted by a cracked ware jug when tapped vigorously. He had heard this sound in several cases of chronic hydro-cephalus, and found it best to auscultate the patient's mouth with the double stethoscope when percussion of the head was practised.

Professor PHILIPSON referred to a case of hyperpyrexia in a young woman, who was under his care in the Royal Infirmary, in 1879. The highest temperature registered was  $117^{\circ}$  Fahr.— $19^{\circ}$  Fahr. above the normal of health. The other points of interest were the non-persistent character of the hyperpyrexial condition, its want of uniformity over the surface of the body, and the slight prejudicial influence of the condition upon the patient. Respecting the want of uniformity of the temperature over the surface of the body, it was no unusual circumstance for the difference to amount to several degrees. This non-correspondence was associated with a corresponding difference in the hyperesthesia. Another point was that the pulse and the respiration never altered, the ratio corresponding with the normal pulse respiration ratio. The hyperpyrexial condition was regarded as the consequence of an influence derived from the vaso-motor nervous system, a neurosis, the manifestations of the hysterical state indicating that the designation of hysterical neurosis was the most appropriate term to be applied to the condition. Professor Philipson believed that the hyperpyrexia was produced by muscular contraction. He was very desirous of hearing from Dr. Drummond whether muscular contraction was observed in his case.

Dr. GIBSON remarked that hysteria with high temperature should be regarded as hysteria *plus* high temperature : that the high temperature is an incident in the history of the malady. Hysterical symptoms shew themselves in males of pronounced emotional constitution. In these cases it is absolutely non-sexual. The same phenomena shew themselves in females similarly constituted. But the hysteria in which high temperature is developed is characteristically sexual ; the ovary itself—the central fact in the female organization—displaying a keen sensibility. Moreover, it is commonly found that such individuals are the descendants of parents who have suffered from some cerebral malady : epilepsy, softening of the brain, &c. Then again, it is to be observed that hysterical paroxysms not unfrequently produce severe and, it may be, persistent congestion in the brain itself, or in its enveloping pia ; and that in these facts is probably to be found an explanation of the occurrence of high temperature in hysteria ; for, although this congestion may not in itself develope the extraordinary rise in temperature, it must be remembered that the intracranial mischief is supplemented by the pervading hysterical temperament, and by the exciting influence of recurring hysterical attacks.

Dr. MANTLE : I should like to remark that, though I believe there are met with very occasionally genuine cases of abnormally high temperature, yet as a rule we must be very suspicious of such cases. I have been reminded in the room, by my friend Dr. Mears, of a case that was in the London Hospital when we were resident there. That woman had most extraordinary temperatures. I believe she was shewn at a meeting of the Clinical Society in London, but it was at last discovered that we were the subject of a fraud, she always having contrived to have a poultice or hot water bottle applied on one or other side of chest before the thermometer came. The instrument was somehow applied by her to the poultice or bottle ; hence the high temperature was explained.

#### MULTIPLE EMBOLISM.

Professor PHILIPSON presented the brain, heart, spleen, and kidneys, illustrating multiple embolism. The patient, a married woman, aged 34, was admitted into the Royal Infirmary, under his care on October 18th, 1888. She aborted four months before admission, and six weeks afterwards lost the use of her left side, face, and limbs. The paralysis persisted, her intelligence diminished, and was abolished altogether two days before her death, which occurred on October 31st.

At the autopsy the heart was found to be hypertrophied and weighed 19 ounces, and a row of beaded vegetations existed on the auricular surface of the mitral valve. The spleen weighed 7 ounces, was firm, and contained a decolorised infarct at the upper

border  $1\frac{1}{2}$  in. by 1 in. in diameter. The right hemisphere of the brain was shrunk and white. Softening over an extensive area in front of and behind the fissure of Rolando, sinking as deep as, but not involving the central ganglia was also present. An embolus was found in the right sylvian artery, extending half-way along the fissure of Sylvius.

It was surmised that subsequent to the abortion, endocarditis had occurred, and that lymph had passed into the circulation and blocked arteries in the brain and spleen.

#### SOLID SARCOMATOUS OVARIES.

The PRESIDENT exhibited two solid ovarian tumours, and said : These were removed last June from a little girl aged 16. The larger tumour weighed, on its removal, 14lbs. 10ozs., and the smaller 3oz. The symptoms were nil. She had menstruated a few times at irregular intervals, and had gradually increased in size till her mistress (suspecting pregnancy) sent her to my friend, Dr. Shapter Robinson, who, recognising the nature of the disease, kindly sent her to me for operation at the Sunderland Infirmary. Her size was enormous, and her whole abdomen was filled with a large, hard, and smooth mass, which presented no evidence of fluctuation in any part of it. The uterus was normal in size and movable. I had to make a very long incision from pelvis to sternum, and then removed the tumours without any difficulty ; there were no adhesions, and the pedicles only required ligature. It was necessary to employ 22 sutures to close abdominal wound. The veins in both broad ligaments were very much enlarged. The result was excellent, no opium required. Temperature never over 100, and she made a rapid recovery, and has been back at her place for months. It will be extremely interesting to watch the future history of the case, as on Dr. Squance kindly examining the tumours, he finds they are small round-celled sarcomas, and I bring them before you to-night as very perfect specimens of solid sarcomas of the ovary—a disease of comparatively rare occurrence.

#### GASTROSTOMY.

The PRESIDENT: The patient that I removed these specimens from was a man I brought before the Society last session, named J. L., aged 47, on whom I performed gastrostomy on September 9th, 1887, and nothing whatever passed through his œsophagus since three days before then, that is since September 6th, till his death 402 days later, on October 15th, 1888, although he gained considerably over twenty pounds in weight. His history is as follows. He was a rivetter by trade. His father died, aged 42, of some brain disease from which he suffered for only a few days. His mother died, aged 37, of phthisis. There are six brothers living, and two sisters ; one sister died, aged 25, of phthisis. The patient



has always enjoyed excellent health, never had any form of venereal disease, lived a sober life, and has been nearly always in constant work, till January, 1887, when he was off work for five weeks, from a blow of a hammer, that fell on his right side while at work.

In April, 1887, when in what he considered excellent health, he found one day, at dinner, that a piece of meat stopped in his œsophagus, and that he was unable to swallow it, and in a few seconds he vomited; he found that he could finish his dinner only by chopping up his food very fine, and from this date till August, when I first saw him, his difficulty in swallowing had gradually increased, so that eventually he could only swallow liquids, and even those in very small quantities, and very slowly. In August he consulted my friend Dr. Coatsworth Watson, who, recognising it as a stricture of the œsophagus, kindly sent him to the Sunderland Infirmary, under my care, with a view to having gastrostomy performed.

On admission he presented the appearance of a man in a state of great exhaustion and very much emaciated, with a well-marked malignant cachexia; he could with difficulty swallow a few drops of milk, and if he took as much as a teaspoonful at a time, he almost immediately vomited it. A full-sized bougie passed with ease as far as the lower third of the œsophagus, where its course was abruptly stopped; beyond this it was impossible to pass the smallest size. In the attempt to do so a little blood was found on the end of the tube. He never vomited blood nor felt any pain where the obstruction occurs, which he could point to, and on carefully listening with a stethoscope, the fluids seemed to stop at the point indicated. He had a double inguinal hernia; there were no scars in his groins. From the absence of all causes which might give rise to traumatic stricture, the denial of syphilis, the history of his symptoms, and, above all, the cachectic appearance, I regarded it as a case of malignant stricture of the œsophagus, and proposed gastrostomy to him; this he refused, and left the Infirmary, but returned on September 8th, not having been able to swallow a single drop since September 6th. On the next day I performed gastrostomy, adopting practically the method of Howse.

Taking as a guide the triangle of Tillaux<sup>1</sup>—which has for sides the left costal cartilages; and the liver, and for base a line drawn transversely from the tip of the tenth rib, recognisable by the break in continuity and the fremitus that can be obtained owing to its ligamentous attachment to the ninth rib—I made a vertical incision down to the sheath of the rectus, about two inches long, having for its centre the centre of this triangle. I then incised

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<sup>1</sup> *Vide Traite d'Anatomie Topographique avec Applications à la Chirurgie.* Par P. Tillaux. Page 719. Quatrième édition. Paris: Asselin et Houzeau. 1884.

the sheath of the rectus, and, dividing its fibres with the handle of a scalpel, opened the peritoneum, the hæmorrhage (which had been very trifling) having been arrested. On passing in two fingers, I at once seized the transverse colon, which was easily recognisable by its thin feel; this I gently pulled downwards, and, passing my fingers underneath the left lobe of the liver, swept it well over the vertebræ and readily found the stomach, which I easily brought through the wound, and passed a strong and moderately thick silk ligature for about half an inch through its serous and muscular coats, to hold it by while passing the sutures. By gently pulling the stomach as far as possible in the opposite direction to that in which I was passing a suture, I passed eight silk sutures in a circle through the serous and muscular coats of the stomach, and then through the whole thickness of the abdominal walls about an inch from the incision. The method I found most convenient for passing the sutures was using a silk suture eighteen inches long, with a rather thin, slightly curved needle about two inches long on each end. The suture was then passed through the coats of the stomach, and each needle was passed from within through the whole thickness of the abdominal wall. The sutures, on being passed, were secured with Kœberlé's forceps, and finally, when all the eight were passed, each was drawn tight and knotted, no bougie or other substance intervening. After this six others were passed, first through the coats of the stomach, and then through the peritoneum and skin, and then secured. The suture which was used to manipulate the stomach was knotted at the distance of a couple of inches and left on. The patient was supported by enemata for five days, when a narrow tenotome was passed through all the coats of the stomach, the patient not feeling the puncture, and through the small opening thus made a No. 7 gum-elastic catheter was passed, and on this the funnel of a binaural stethoscope was attached, and a couple of ounces of warm milk allowed to flow gently into the stomach, and next day all the sutures were removed, the wound having healed. He was fed in this manner with a small quantity of either milk or beef-tea every few hours, and in a few days a flexible india-rubber tube was introduced; and he wore this constantly, and changed it himself every six or seven weeks. There never was any rise of temperature; indeed, for the first few weeks he had a subnormal temperature. He soon began to put on flesh, and his appearance gradually improved in a marked degree. Unfortunately, he was not weighed till about a month after the operation, when he had put on a considerable amount of flesh, his weight then being 7st. 8lbs., and in a few months it reached 9st., at which it continued with but slight variation. He generally fed himself sitting in a chair. The wound was always quite dry. He did not complain of any dyspepsia or intestinal

trouble. He could not distinguish any taste of what passed into the stomach, but could readily detect its temperature, and experienced a pleasant sensation of warmth after taking alcohol, which he took in a small quantity in his milk. After he fed himself there was a copious flow of saliva, which passed into his œsophagus; and after a little time he had to vomit this, when he sometimes detected the taste of egg, beef-tea or milk so strongly that he fancied he had vomited some from his stomach, although he felt positive he had after innumerable trials, never succeeded in swallowing a single drop since three days before the operation. No attempt to dilate the stricture had been made after the operation.

I may state that the patient was operated on with the strictest antiseptic precautions, including the use of carbolic spray, which I use in all my abdominal sections.

The patient continued well and free from pain till the beginning of October, when he became much troubled with a cough and lost flesh. He was confined to bed about a week, when, on October 15th, during a fit of coughing, he vomited about a quart of bright red blood and suddenly died, having lived 402 days after the operation.

On *post-mortem* examination, the opening to the stomach was perfectly healthy, and would admit a No. 16 English catheter; round this, for about an inch all round, the stomach and abdominal wall were firmly adherent. The œsophagus was completely obliterated at the portion where the obstruction was detected; its place being taken by a ragged mass for the distance of an inch and a half; engaging in it all the surrounding tissues, and adherent to the aorta, through which at its uppermost portion it had ulcerated, forming an opening that would admit a No. 8 catheter, and through which the fatal hæmorrhage had occurred. The mass was somewhat longer and not so wide as a large walnut. The lung in the vicinity was deeply congested and slightly infiltrated; above and below the œsophagus was perfectly healthy, as was the aorta, which was in no way dilated. All the other organs, including the stomach, were healthy. A portion of the growth was submitted to my friend Dr. Squance for microscopical examination, and he has kindly reported as follows:

*Microscopical Appearances.*—The growth is a simple carcinoma, resembling in places scirrhus. In parts the alveoli vary considerably in size and contain masses of epithelial cells, in some instances undergoing fatty degeneration. In another portion the stroma was firm and fibrous, with very few cells in the alveoli, traces of which was surely left in places. On the extreme border of the piece of tissue examined, the stroma was richly celled, and consisted of rapidly-growing fibrous tissue, the cancer cells being arranged in “nests,” as in ordinary epithelioma; some of the cells being cornified.



I have much pleasure in handing round the specimens, as I believe this patient has lived longer than any case on record where gastrostomy has been performed after complete closure of the œsophagus by carcinoma. Mr. Marcus Beck, having been kind enough to look up the records of gastrostomy for cancer, writes to me that he can find no other case that lived for more than eight months after the operation.

Dr. GOWANS shewed a scirrhus tumour, removed from the breast of a girl, aged 13; also a fibrous tumour removed from the jaw; this tumour was removed nine years previously, and returned five years after the first operation.

#### ANEURISM OF AORTA.

Dr. DUGGAN: J. R., æt. 55, came under my care four weeks ago complaining of shortness of breath, and of a loud disturbing noise in his chest, having been off work eighteen months. On examining him I found dulness on percussion for two-and-a-half inches above the normal heart dulness, extending to the right edge of sternum. There was a very distinct upheaving thrill felt all over the anterior surface of the chest; no distinct bulging. On auscultation there was a very loud whistling systolic murmur, which could be heard in every part of chest, but loudest about an inch above the right nipple; this was so loud as to be distinctly heard when standing two yards from the patient. The second sound was very weak and indistinct. Patient complained of some difficulty of swallowing; his voice was husky and high pitched.

He took suddenly worse a few days after I first saw him, and died within three hours.

A *post-mortem* was allowed, limited to the thorax.

The lungs were both healthy. There was a large tumour seen involving the whole of the aorta from its commencement to beyond left carotid, which was found to be a fusiform aneurism the size of a newly-born child's head. This was unruptured, and contained three antemortem clots. The internal coat was seen to be ulcerated in patches about the size of a sixpence. The aortic and mitral valves were both covered with atheromatous growths. The heart was of normal size and thickness; in fact the aneurismal tumour was larger than the heart.

*Remarks.*—The reason I bring this case before your notice is on account of the loudness of the murmur, and ask for an opinion as to whether it were likely to be caused by the aneurism or the valvular disease.

Secondly, on account of the large size of the aneurism, especially it being a fusiform aneurism; and thirdly, because of the normal size of the heart when we look upon the incompetency of its valves, and the size of the aneurism, and to see if a reason can be brought forward for this.

## CARD SPECIMENS.

## I.—CEREBELLAR TUMOUR.

Dr. DRUMMOND shewed a specimen of cerebellar sarcoma that was removed from the body of a man aged 26. He had seen the case with Dr. Adam Wilson, to whom he was indebted for the opportunity of bringing it under the notice of the Society. The illness lasted about fifteen months, and began with symptoms of dyspepsia. Headache was an early feature, and practically remained constant till the end. It was often worse after meals, and was chiefly situated in the frontal region, though often on the top of the head. A few months before his death his gait became staggering, and vomiting was complained of, though this symptom could scarcely be said to be marked during any period of the illness. When he came under observation, on the 16th July of the present year, the headache was very severe; he reeled about when he attempted to walk, and was chiefly inclined to fall to the right side, and there was pronounced double optic neuritis. He had also diplopia, and a slight squint was observed—the left eye up and out. There was no paralysis, and the knee-jerk was decidedly diminished. He died on the 26th of August, having been confined to bed for upwards of four weeks previous, owing to the difficulty in standing and walking (inco-ordination). Vomiting ceased three or four weeks, and the headache a few days before the end. He remained conscious until a few hours before death.

At the *post-mortem* the head only was examined. The body was thin but not emaciated. The skull was thick, and the convolutions were flattened, but not decidedly so. The vessels of the brain were normal. The internal membranes were thickened and cloudy about the optic chiasma; and bands, indicating old meningitis, passed from the pons to the optic tracts. On dividing the tentorium a tumour the size of a large fig was found, pressing upon the pons and medulla, and springing from the right side of the cerebellum, which it did not infiltrate, being essentially circumscribed. On section, the tumour was soft and highly vascular. Examined microscopically, the tumour was found to be a spindle and round-celled sarcoma. A drawing of the specimen was exhibited.

## II.—SYPHILITIC LIVER.

Dr. DRUMMOND next shewed drawings and microscopical sections of a cirrhotic liver studded with soft gummata. The patient was a man aged 62, a labourer, and was admitted into the Royal Infirmary complaining of pain in his right hypochondriac region of a few weeks' duration. He stated that when in fairly good health, some six or seven weeks before his admission, he was struck by some heavy timber on the right side and back, which accident laid

him off work and caused the pain he complained of. After a course of treatment, consisting of rest and blistering, that was to a certain extent successful in ameliorating his pain, he sought admission into the Infirmary, as his general health had become markedly impaired. When examined he was seen to be emaciated (had lost nearly two stones in two months), and his complexion was decidedly sallow. He still complained of pain in the right hypochondrium and back, towards the right side of the spine. This pain has aggravated, on pressure, and by coughing or deep breathing. Appetite was bad, and food caused a painful feeling of distension. There was no vomiting and very little flatulence; tongue moist and furred; pulse slow, 60; urine acid, no albumen, only small deposit of urates. There was no history of syphilis admitted, and a history of alcoholic excess was with difficulty elicited.

As he lay on his back the right hypochondriac and epigastric regions were observed to be prominent. The liver, though tender, could be palpated readily; its lower margin reached, in the middle line, to  $3\frac{1}{2}$  inches below the xiphoid cartilage, and in the right mammary line to two inches below the ribs, and the left lobe could be felt in the left mammary line one inch below the arch. The liver dulness extended upwards to two inches below the nipple. The border of the liver was hard, sharp, and irregular to the touch; the upper surface was decidedly nodular, and one or two nodules seemed to be as large as small walnuts. The whole organ moved with inspiration. The splenic dulness was increased, but the organ could not be palpated. By degrees the margin of the liver ascended, and *pari passu* with the diminution in its size the abdominal cavity filled with fluid. Later, jaundice appeared, and hæmatemesis and melæna came on, which speedily brought the case to a termination.

As the chief feature of clinical interest in the case lay in the diagnosis, he would venture to state, before referring to the *post-mortem* examination, why the case was regarded as one of cirrhosis of the liver. It was true, if the patient's statement were to be relied upon, the illness had only lasted a few weeks before his admission, and was ascribed to the injury; and at the time of admission a painful and nodular enlargement of the liver was the most obvious feature, which, in an emaciated old man with a sallow skin (decided cachexia) strongly suggested carcinoma. But the enlargement was too great to have sprung up in the few weeks (five or six) that had elapsed since the beginning of the attack, and the pain could be accounted for on the supposition that the injury had caused local peritonitis. Then again there was evidence of splenic enlargement. But the nature of the case was established as time went by, for the liver, instead of continuing to increase, was observed to contract. The *post-mortem* examination, however, revealed a condition of things that was scarcely expected. The



body was thin, and slight jaundice was present. The abdomen was distended with bile-stained serum. The liver extended a couple of finger breadths below the sternum in the middle line. The diaphragm was extensively adherent to the right lobe. The surface was nodular, and varied from a light yellowish brown to a pink colour. The nodules were both large and small; indeed were all sizes, from a pin-head to a walnut. The larger were exceedingly soft, and in section could easily be turned out like sebaceous matter; into one or two hæmorrhages had occurred. The nodules were seen to be soft yellow masses, and they were scattered throughout the entire liver substance, which was decidedly cirrhotic. The gall bladder contained about one ounce of light green bile, with a quantity of mucus. The liver weighed 4lbs. The spleen was enlarged 14 ounces, and presented the usual appearances of hypertrophied spleen. The stomach was filled with dark semi-digested blood; its veins were enlarged, and two or three minute ulcerations appeared to mark the site of the hæmorrhage. The opinion formed of the liver at the *post-mortem* was that the morbid changes were partly cirrhotic (alcoholic) and partly syphilitic, the latter being accountable for the definite yellow nodules. A microscopical examination subsequently bore out this view. The distribution of the new fibrous tissue was essentially multilobular, and the yellow nodules were composed of almost structureless granular material. He thought he could say that, in his experience, the specimen of which he shewed water-colour drawings was almost unique.

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## INTUBATION OF LARYNX AND AIR PASSAGES.

By THOMAS ANNANDALE, F.R.C.S., F.R.S.E., Surgeon Edinburgh Royal Infirmary; Regius Professor of Clinical Surgery in the University of Edinburgh; Examiner in Surgery in the University of Durham College of Medicine; Honorary Member of the Northumberland and Durham Medical Society.

I desire to consider the subject of intubation of the air passages to-night as concisely and as practically as possible, and in order to do so I propose to study the procedure under four heads.

I cannot say that I have much that is new or original to tell you, but as the subject is now attracting considerable attention, I hope that this short note of the practical and clinical facts connected with it may not prove uninteresting.

First : *Intubation as an aid in certain operations.*—In operations, involving the mouth or naso-pharynx, in which bleeding may take place into the air-passages, and interfere with the respiration, or in operations in which the respiration is not satisfactory during the administration of an anæsthetic, preliminary tracheotomy or laryngotomy, with or without plugging of the throat, is a useful and well-recognised procedure. Experience has, however, taught me that intubation of the trachea through the mouth can, in the majority of instances, be substituted for tracheotomy, and is a simpler and safer means of aid. I give a note of the following case in illustration. About nine months ago a man was brought to the Infirmary from the country to me suffering from great difficulty of respiration, caused by the pressure of a very large and malignant tumour of the thyroid gland. The larynx and trachea were completely buried in the tumour, and after some search I was only able to feel the top of the upper part of the thyroid cartilage, and it was upon a level with the lobe of the left ear. It was necessary at once to do something to relieve his breathing, and I, accordingly, administered chloroform, with the intention of cutting down upon the thyroid cartilage, opening into the larynx, and introducing a tube. Before operating I had provided myself with a gum-elastic catheter (No. 10), having an opening at the extremity and an efficient mouth gag. It was well I did so, for during the operation his breathing ceased, and it was only by introducing the catheter through the glottis that his respiration was restored. Through this catheter the anæsthetic was further given, and the operation completed with success. I have since employed a similar plan in operations attended with a risk of bleeding into the air-passages. The tube employed in these cases was, as has been stated, a gum-elastic catheter, such as I shew you, and it is as well to have in it a stilette of strong wire, the point of which should not project through the opening at the end.

Dr. McEwen, of Glasgow, appears to have been the first surgeon to use intubation on the principle I have just detailed, and I would refer you to an important and practical paper by him upon this subject in the British Medical Journal for July the 24th and July the 31st, 1880. Dr. McEwen's first operation was performed on the 5th and 6th July, 1878.

Second : *Intubation as a means of restoring or carrying on respiration in cases of sudden obstruction in the larynx or trachea.*—There will, I think, always be cases of this kind, in which rapid laryngotomy or tracheotomy will most quickly, and consequently most successfully, restore the respiration; but many of these sudden emergencies can also be treated rapidly and successfully by the introduction of a tube through the mouth into the trachea, and this tube may, if necessary, be retained there for some time. A few weeks ago a young man was admitted into my wards on account of a large swelling in the neck, apparently of glandular origin. The larynx and trachea were slightly displaced to the left side, but the respiration was not much interfered with. Two days after admission a rapid increase, owing to an attack of acute inflammation, took place in the swelling, and the breathing became most difficult. Instead of performing laryngotomy or tracheotomy, operations which would have been difficult in this case, my house-surgeon, Dr. Simpson, introduced a tube into the trachea, through the mouth, and this at once relieved the patient. The tube was retained for twenty-four hours until I saw him, when chloroform was administered through the tube, and a deep incision made, which gave exit to a collection of pus. This having taken off the pressure from the air-passages, the tube was removed and the man progressed satisfactorily. In the paper already referred to, Dr. McEwen records several cases of œdema glottidis being successfully treated in this way; but Dr. Huch, of Freiburg, had previously treated one case of acute stenosis of the larynx by introducing one of the tubes suggested by Schrötter.

The intubation under these two first heads is, in my opinion, best carried out by the long catheter, or similar tube, one end of which protrudes through the mouth. It has been suggested that such tubes should be passed through the nose; but it is much more difficult to pass a tube in this way through the glottis into the larynx and trachea, and therefore I prefer to pass it through the mouth.

Third : *Intubation in cases of acute inflammatory affections of the larynx, more particularly in croup and diphtheria.*—It is in connection with these affections that intubation has attracted and is attracting much attention; and, already, considerable experience of it, particularly in America, has been recorded.

In 1858, Bouchett read, before the Academy of Medicine, in Paris, a paper entitled—"On a New Method of Treating Croup, by



Tubage of the Larynx." Bouchett's few attempts were unsuccessful, and the operation was condemned by a committee of his colleagues.

In 1885, Dr. O'Dwer, of New York, published a paper in the New York Medical Journal for August 8th, 1885, and it is to him that we owe as a result of observations and experiments carried on for five years prior to this date, the successful establishment of the operation.

The principle of O'Dwer's operation is to introduce into the larynx, through the glottis, a metal tube of a shape made to fit comfortably in the canal, and of a size according to the age of the patient and capacity of the cavity, and to retain the tube as long as may be required, provided it allows the respiration to be properly carried on. In fact, it is proposed by this proceeding to relieve, in many cases, the laryngeal obstruction to respiration, instead of performing tracheotomy.

When attending the recent Congress of Physicians and Surgeons in the United States, I had an opportunity of listening to several papers upon the subject and, also, of discussing the question with gentlemen who had had large experience of the operation; and, although no one considered that intubation would take the place of tracheotomy in every case, there was a very general opinion that in patients under four years of age, intubation gave better results than tracheotomy. Dr. Ingal's (New York Medical Journal for July 2nd and 9th, 1887) reports that he had collected 514 cases, with 134 recovering, or 26·7 per cent., whereas the recovery after tracheotomy in patients under four is only from 15 to 20 per cent.

For a well-illustrated and excellent paper upon the performance of this operation, I would refer to one by Dr. Waxham, in the British Medical Journal, for September 20th, 1888. Dr. Waxham has collected notes of 1,072 operations performed in America, and out of these 287 recovered, about 27 per cent. He also gives an interesting table proving the advantages of intubation over tracheotomy in young children. Taking only one example from this table, it is found that in children between 2 and 2½ years the recoveries after tracheotomy were 12 per cent., after intubation 19·46 per cent. It may be well now to consider the advantages claimed for intubation in this class of case, and then to consider any of its disadvantages as compared with tracheotomy.

#### ADVANTAGES.

(1) No anæsthetic is required, and it can be done at once without shock or the risks attending tracheotomy, especially in young patients.

(2) No external wound is made, and as the breathed air passes through the mouth and is so warmed, there is less risk of pneumonia or bronchitis.

- (3) No after treatment is required when the tube is removed.
- (4) Consent of friends is more readily obtained than in case of tracheotomy.
- (5) Tracheotomy can at any time be performed if intubation fails.
- (6) In many cases the tube can be removed early—third, fourth, or fifth day.

#### DISADVANTAGES.

- (1) When introducing the tube the membrane may be pushed down and obstruct respiration.
- (2) The tube may be obstructed by membrane passing into it.
- (3) Food may pass down tube and cause pneumonia or other complications.
- (4) The tube may slip down into the trachea.
- (5) The tube may be coughed up.
- (6) If tube becomes displaced or obstructed it is not easily re-introduced by a nurse.

The first of these accidents would in all probability give rise to immediate symptoms, so that the membrane might be removed, either by means of laryngeal forceps, or by the performance of tracheotomy. The second is a rare occurrence, according to the experience of operators, and can only be remedied by the removal of the tube and replacement of it after its course had been cleared, or by the performance of tracheotomy, if the symptoms were urgent.

To prevent the third it is advised that food, especially fluids, be at first given in small quantities, and the nourishment assisted by nutrient rectal injections, or by means of a tube passed into the œsophagus. There is a considerable difference in different patients in connection with the power of swallowing after this operation, and many swallow well after the first day or two. I believe much depends upon the exact position of the tube, and the amount of interference with the action of the epiglottis.

The fourth and fifth very rarely occur.

The sixth point should not, I think, be a bar to the operation, for in such cases it is usual to have some skilled assistance at hand which should be able to replace the tube if required. If such skilled aid cannot be available tracheotomy would be preferable.

I conclude this section of my paper with a brief note of a case (my only case as yet), recently treated by intubation. A little girl, æt. 3, suffering from great difficulty in respiration, the result of an attack of croup, was brought to me at the Royal Infirmary by Dr. Sloan, about 12 o'clock on the forenoon of the 9th of November. She was attacked with the croup upon the 6th, three days before, and although carefully treated, her symptoms grew worse, and the

laryngeal obstruction became so marked, that immediate relief was demanded. Instead of performing tracheotomy, I at once introduced one of O'Dwer's tubes. When the tube entered the glottis, there was a violent spasmodic cough, and a piece of membrane was ejected through it. Immediately after this, when the tube had been placed in position, the breathing was relieved, and ten minutes after when I visited the child in the ward she was respiring naturally, and was asking in a whispering voice, for a "piece." For the first few hours there was a difficulty in swallowing, much of what was taken being ejected, but after this she was able to swallow with ease, and took milk in abundance. On the following day, the 10th, the respiration was more rapid, and the face flushed, but the tube was causing no irritation, and there was no laryngeal obstruction. The symptoms, however, pointed to commencing pneumonia. On the 11th, the lung condition was worse, but the tube was retained, and there were no signs of laryngeal obstruction. She had no difficulty in swallowing. On the 12th she became much exhausted, and died the same forenoon, the tube having been retained until the last. The *post-mortem* examination, which was confined to the throat, shewed that the laryngeal condition had been quite relieved, and that the tube had caused no ulceration of the portion of the canal upon which it rested. Death was the result of pneumonia, which had probably been caused by the exposure of the patient when brought to the hospital. The points which convinced me of the value of intubation in connection with the experience of this case were—

- (1) The ease with which the tube was introduced.
- (2) The complete relief to the respiration when it had been properly adjusted.
- (3) The fact that the tube caused no irritation, although retained for some days, and carried on efficiently the laryngeal respiration.
- (4) The fact that after a few hours the patient was able to swallow fluids well.
- (5) The satisfactory condition of the larynx as proved by the P. M. examination.

Fourth: *Intubation for Stenosis of the Larynx, the result of Chronic Inflammatory conditions, or of accidental or surgical wounds.* The introduction of O'Dwer's tubes in this class of case has been followed by better results than have been obtained by any other plan of treatment, and these tubes have been worn in the adult and also in the child for a week, without requiring to be changed, and in a few cases for several months. In one case related by O'Dwer, the tube was worn for ten months. Intubation in these cases not only relieves any temporary obstruction to respiration, but the permanent retention of the instrument when



it can be borne is likely to have a beneficial effect in restoring the proper calibre of the canal.

The PRESIDENT said : The very excellent paper which Professor Annandale has just read is a welcome contribution to the Society, describing fully an important procedure which has been extensively practised of late by our American confreres, but which we at this side of the Atlantic have had very little experience of as yet. I may perhaps remind Professor Annandale that when Bouchut brought his communication before the Académie de Medicine in 1858, Trousseau was one of the commission appointed to enquire into the advantages of intubation of the larynx, and as we all know what an enthusiast he was on the subject of tracheotomy, it was doubtless to his influence, that it met with the fate that befell it. But Desault in 1801 accidentally intubated the larynx in attempting to pass a catheter through a stricture of the œsophagus, and the accident was only discovered when he poured some milk down the tube, which speedily killed the patient. Bichat profiting by this experience deliberately passed a tube into the larynx of a patient suffering from acute œdema of the glottis and left it *in situ* for 24 hours, his patient recovering. As regards the gag, I would suggest that a reliable assistant should, whenever it is possible, have his whole attention devoted to keeping it *in situ*, as though I know a very large number of gags I know of none that is perfect, and I have frequently seen accidents happen through its slipping during an operation, and in the discussion at Washington, Dennison related how he nearly lost one of his fingers through the gag slipping. Having had no personal experience of intubation I must reserve my opinion on it, though I would gladly welcome any substitute for tracheotomy, which in my hands has not been at all satisfactory in the treatment of diphtheria; and besides which, I can readily believe we would often get permission (as has been suggested) to intubate a larynx where a cutting operation would be refused, and for this very reason the comparison of the results of tracheotomy and intubation are not always reliable. I would suggest that till we have further experience of the operation it would be well to have the tracheotomy instruments on the table during its performance.

On the motion of the PRESIDENT, a hearty vote of thanks was accorded Professor Annandale for his paper.

Mr. MORGAN : We all must feel grateful to Professor Annandale for his very able and instructive paper—a paper which, at any rate, would lead us to think upon this important subject. For myself I cannot, perhaps, agree with Professor Annandale in thinking that “intubation” could be either easier of performance or more satisfactory in its results than tracheotomy.

In this very clear demonstration which Professor Annandale has

given of its method of operating, we see that it must require a very great amount of dexterity to fix the tube in position, or to remove it; and its retention depends upon the very uncertain hold of a silken thread.

In the case in which Professor Annandale had tried this treatment, it appears to me not improbable that the presence of the tube has been the cause of the lung mischief.

In tracheotomy, even in young children, we have an operation which is not difficult; and which is fairly successful. At present you, sir (the President), have in our Infirmary, under your care, a young man upon whom I did tracheotomy many years ago when he was brought to us a child of two or three years old, in a dying state. When tracheotomy fails, it does so because the disease overleaps the barrier which we attempt to set up, and, *a fortiori*, it will do so after "intubation."

There are, however, cases in which I can understand that "intubation" would prove of use. As, for instance, in those children who in attempting to drink from the spout of a boiling kettle—a practice not uncommon amongst the poor of Dublin—have sudden œdema of glottis, and, unless immediately relieved, die.

Mr. PAGE: I regret that my experience of tracheotomy in young children is not so satisfactory as my friend Mr. Morgan's seems to be. The operation, when performed in croup and diphtheria has, in my practice, been anything but encouraging. I can point to some few cases of croup where I believe the operation has saved life, but I never saw the life of a child suffering from diphtheria saved by tracheotomy, and, I think, most surgeons have had a similar experience. The late Mr. Spence advocated and practised tracheotomy in croup and diphtheria, so that many cases were sent to him at the Royal Infirmary, Edinburgh. I remember Dr. Dunsmure, his house surgeon, having in a few months 14 cases under his care, but they all died. I am, therefore, inclined to welcome this American method as an additional means of treating these cases, and sincerely hope it may be found as useful in the hands of English as we are told it has proved in the hands of American surgeons. The instruments are very ingenious and beautifully made, and I myself shall certainly be disposed to try the method of treatment so ably described by our distinguished member, Professor Annandale, to whom, I am sure, the Society is much indebted for the able paper we have had the pleasure of hearing this evening.

Dr. LYON: In brushing out larynx, touching the vocal cords with the sponge is apt to produce spasmodic closure of the glottis, which lasts a considerable time. I wish to ask Dr. Annandale whether this spasmodic closure of the glottis has been found to cause any difficulty in introducing the laryngeal tube.

Dr. HUME inclined to Mr. Page's attitude of welcome to any treatment of diphtheria which was of greater promise than the present method. The difficulties that suggested themselves to him were the difficulty of introducing the tube, and the difficulty of getting the tube out were the thread to break.

Dr. GIBSON pointed out that intubation did not prevent the performance of tracheotomy at a later stage.

Dr. ANDERSON had seen a good deal of the treatment of croup by tracheotomy by the late Prof. Spence in the Royal Infirmary, Edinburgh, when Dr. Braidwood acted as his house surgeon, having been then resident physician in the hospital, and was frequently consulted about complications which occurred in the various cases. The operation then, even in such skilful hands, seemed a most unsatisfactory one, and the mortality was such as to give very small encouragement. The Society were very grateful to Prof. Annandale for his excellent paper on the subject of intubation of the larynx, which was entitled to a fair trial, and he was sure the profession would gladly hail any proposal which offered any advantage over tracheotomy. Intubation seemed to be a plan of such a character, and he hoped it would receive more attention in future.

Prof. ANNANDALE, in reply, said his experience of the mortality after tracheotomy differed from that of Mr. Morgan. Of course operators had "runs." Sometimes we had four or five consecutive cases recovering, and then four or five consecutive cases dying. He would draw attention again to the fact that in children between two years and two-and-a-half years 12 per cent. had been found to recover after tracheotomy, while 19 per cent. recovered after intubation. Irritation after the first introduction of the tube was found rarely to recur, and, if the head were held well back, no difficulty would be found in introducing it. As regards removal of the tube, he admitted that difficulty might occur, just as in the removal of a tracheotomy tube. As regards the danger of the tube slipping down, there should be little anxiety; there was only one recorded example of this complication. He would, however, advise that, when intubation was practised, tracheotomy instruments should be at hand, in case the former operation failed in any way.

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## IS URTICARIA A SYMPTOM OR A DISEASE?

By ALFRED MANTLE, M.D., Fellow of the Medical and Royal Microscopical Societies, London.

The object of the title of this short paper is to elicit a discussion as to the nature of that morbid condition known as urticaria, not so much when met with as an acute affection and of only short duration, but when seen as a lasting and most irritating and distressing affliction, annoying to the patient, and also annoying to the doctor, on account of his inability to do much to relieve it.

Cullen placed urticaria amongst the exanthemata, but this could only have been on account of the eruption being accompanied with a certain amount of fever and other symptoms common to the exanthemata. Its occurrence in the same person many times over excludes it from this category. Urticaria may accompany catarrhal affections of the respiratory organs, when, it is probable, wheals also affect the mucus membrane of the tubes; it is seen also in typhoid, rheumatic, and intermittent fevers. We most commonly meet with it, however, as a symptom of irritation to the alimentary canal. I need hardly remind you how common it is to find some article of food has caused it, and when this is the case, how frequently shell fish are found to have been the exciting cause. You are equally familiar with the action of certain medicines in producing this condition—as, for instance, turpentine, copaiba cubebs, and others. Frank says intense and sudden mental emotion, such as terror and anger, will produce it; whilst Hebra says certain physiological changes in the sexual functions of women—such as menstruation and pregnancy—cause it, this observation being corroborated by Scanzoni. A few weeks ago I was called to see a child aged 7, who was suffering from severe pain in the right hypochondriac and lumbar regions. The temperature was raised and pulse much quickened. She was covered with a copious eruption of urticaria, which was the first noticeable symptom. The disease appeared to be in the bowel, and the passage of hardened fæces with blood and mucus on several occasions during the illness proved this to be so. In this case, then, the cause of the urticaria was intestinal irritation.

Another case under my care was that of a girl aged 10, who had severe attacks of pain in the left hypochondriac region. On three occasions, after the paroxysm of pain, she developed a crop of wheals all over the body. She vomited blood, and passed blood per rectum; but I failed to find she had eaten anything unusual which might act as the irritant. Here we had urticaria developed in a case of acute gastric irritation.

Another case under my care this year was that of a lady æt. 69,

rather corpulent. The liver was found somewhat enlarged, and there was slight jaundice. An urticarious rash was prominently marked over the back and chest, which continued for three weeks. Treatment directed to the liver eventually caused its disappearance. In these three cases it is evident that the presence of urticaria was due to nerve influences exercised respectively through the bowel, stomach, and liver; for in each case, as the abnormal condition of these organs subsided, the rash of urticaria disappeared.

Other cases are frequently met with of a much slighter nature, and are unaccompanied with any marked derangement of an alimentary or other organ.

In all of these cases, however, we have a disturbed innervation of the skin; and of the three sets of nerves found in the skin, sensitive, motor, and vaso-motor, it would appear to be the last which are affected. If there be disturbance in the alimentary canal, we have a reflex irritation through the splanchnic nerves, causing the nerves supplying the capillaries of the skin to perform their functions in some abnormal way. This is shewn by the finest vessels first contracting, and afterwards dilating and remaining so for a considerable time.

In other cases, but I think rarely, it is probable the reflex irritation travels through the uterine nerves through some disturbance of the genitals, or from the brain in consequence of emotional disturbances.

In most of these cases, however, when the cause setting up the reflex irritation is removed, the rash disappears, but occasionally acute urticaria becomes chronic.

In CHRONIC urticaria we have a most obstinate and teasing morbid condition, and it is here where urticaria appears to be no longer a symptom but a disease. It may be intermittent, and come and go and come again. There is generally no fever, and it is in the evening, as in the acute form, that the distressing feeling is worst.

A woman, 58 years of age, was under my care for 18 months. Why she remained so long when I did her so little good can only be explained by the fact that she had tried the skill of so many doctors before who were as equally incompetent to cope with the disease as I was, and in some cases perhaps more so. She had had urticaria for seven years. Her life was a torment to her, for no sooner did she lie in bed to rest than intolerable itching took place, and large wheals of urticaria were present. In her case the face and the flexor surfaces of the arms were the favourite spots. Except for being worn out for want of rest she was in good health, and no organic disease could be found.

I tried Willan's plan of excluding one after another the several articles of food she usually partook of, but with no good result, shewing that it was not induced by ingesta. Internal remedies

seemed futile, and the only ease and comfort I could give her was by the inunction of chloroform ointment.

She got tired of seeing me, and I can assure you I was tired of seeing her.

She has seen many others since, but I hear the last state of this poor woman is as bad, if not worse, than the first.

As Fagge says, we know little or nothing of the pathological condition of urticaria when chronic, as in this case. For my own part I think a good deal is of mental origin, probably brought about by loss of sleep and the constant irritation.

It is here where we seem to have some permanent or intermittent disturbance of the vaso-motor system, and what usually is seen as a trivial affection and symptomatic has become a most distressing and pitiable disease, and one for which medicine seems of little service.

Dr. OLIVER: I should like to ask Dr. Mantle if, in any of his cases of urticaria, he has noticed pericardial friction. In a case of urticaria in a man some time ago under my care, who was suffering from disease of the rectum, the rash on the skin came out every evening, and during the time it was out patient complained of precordial pain. On listening over the precordium, distinct pericardial friction could be heard, which lasted always a few hours. It disappeared during the day, only to return at night with the development of the rash. In this case I thought that a crop of (?) wheals had come out on the pericardium.

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## NOTES OF AN UNUSUAL CASE OF PERIEPENDYMAL MYELITIS.

By DAVID DRUMMOND, M.D., Physician to the Royal Infirmary.

Charles B., aged 29, a policeman, was sent to the Royal Infirmary on April 17, 1888, by my friend, Mr. J. R. Baumgartner. His previous history is briefly as follows: Towards the end of March he was much exposed during very severe weather, and to this he ascribed his illness. About this time, or even earlier, he experienced rheumatic pains in the legs and shoulders, and suffered much from headache. About the 10th of April he complained of a more severe pain than usual in the right hip, and also felt a girdle sensation round the waist, which lasted two or three days. Then micturition became difficult, and he found that he could not empty his bladder; and once or twice urine passed involuntarily. On the morning of the 13th of April he discovered, on attempting to rise, that his legs had become powerless, so that he could not stand.

*State on admission:* A large, well-nourished man; weight, 13st.; complete motor paralysis of lower extremities; some irregularly-distributed patches of anæsthesia scattered over both legs; sensibility normal above umbilicus; knee-jerk present but feebly marked; slight plantar reflex. Complained of a feeling of weakness in the lumbar region, and of pains in the legs. Retention of urine requiring the use of the catheter; urine at first was acid, sp. gr. 1028; no albumen or pus; in a few days it became cloudy, and phosphates and pus appeared. No bed sores. The symptoms continued with little or no alteration, except that the condition of the bladder grew materially worse, until about the 28th April, when great abdominal tenderness was complained of, and obvious symptoms of peritonitis appeared; and he died on the 3rd of May, nineteen days after the onset of the motor paralysis. Prior to the occurrence of peritonitis there was no pyrexia. The pus in the urine increased considerably towards the end, in spite of the careful washing out to which the bladder was subjected from the time the alkalinity of the urine was detected.

There was a history of syphilis; and a taste for alcohol was admitted, but excess was denied.

*Post-mortem examination:* Body generally well nourished; legs relatively thin. No bed sores. An unusual quantity of dark blood escaped from the tissues when the preliminary incision was made for removal of the cord. Nothing of interest attracted attention in the spinal cord, except pallor of white columns and apparent relative increase in the bulk of the grey matter. The lungs were markedly œdematous. The heart was soft and pale,



ANTERIOR.



POSTERIOR.

DR. DRUMMOND'S CASE OF PERIEPENDYMAL MYELITIS.



but otherwise normal. The liver pale—cloudy swelling. General peritonitis. The intestines were in places bright red and were matted together by recent soft yellow lymph. The bladder was adherent to the small bowel, and at its upper and posterior part an abscess cavity was discovered the size of a walnut; this communicated with the peritoneal cavity and opened into the bladder. The walls of the bladder were thickened and œdematous; the mucous membrane was studded with small hæmorrhages. Kidneys pale, but otherwise normal. Death had evidently occurred from acute peritonitis, the result of an abscess in the vesical wall discharging into the peritoneal cavity.

The lumbar enlargement of the spinal cord was examined very carefully after hardening. All the sections stained with carmine emphasized the central grey matter, when viewed by the naked eye, as a bright red spot. Under the microscope a general and very striking nucleation was apparent: the whole section was studded closely with red dots, which seemed to be most crowded around the central canal. The canal itself in the middle and lower portions of the lumbar enlargement was patent, and the columnar lining well shewn; but as the *conus medullaris* was approached the canal was no longer to be seen, and its site was occupied by a nucleated reticular tissue, which stretched out at each side in concentric laminae. Throughout the lumbar enlargement the grey matter surrounding the canal was crowded with nuclei, which were particularly numerous in the posterior grey commissure; in some sections little or nothing was to be seen of the commissure for the masses of nuclei. They were certainly far too numerous to admit of any doubt that the condition was pathological. The artery of the anterior median fissure was much thickened and its sheath was everywhere crowded with nuclei. Throughout the cord generally the minute arteries were considerably changed, indeed it was impossible to avoid the conclusion that there was a more or less universal syphilitic arteritis present. The cells in the grey horns were normal and there were no changes worth naming in the white columns beyond the excessive nucleation referred to.

It is not easy to explain the clinical features of the case in the light of the changes discovered in the cord. The rapid onset of the paralysis led me to expect a more acute and destructive lesion of the central grey matter of the lumbar enlargement—a condition in which, it is true, it is usual to meet with in bed sores, profound anæsthesia, and abolition of reflex action, in addition to motor paralysis and bladder disturbance. My impression is that the lesion was syphilitic, and that the changes in the central grey column, resulting in rapid proliferation of nuclei around and behind the central canal, must be held responsible for the symptoms. I am inclined, therefore, to regard the case as an unusual example of periependymal myelitis.



# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

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SESSION 1888-89.

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## JANUARY MEETING.

THE FOURTH MONTHLY MEETING of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, January 10th—Dr. Murphy (President) in the chair.

### NEW MEMBERS ELECTED.

Lawrence, James, M.D., Darlington.  
M'Cracken, James, M.B., Newcastle-upon-Tyne.  
MacNaughton, William, M.D., Walker.  
Skrimshire, F.W., M.R.C.S., Morpeth.  
Mackenzie, J. C., M.B., Morpeth.  
Douglas, Edwin, L.R.C.P., Morpeth.  
Burdon, John, L.R.C.P., Newcastle-upon-Tyne.  
Sinclair, Francis W., M.B., South Shields.

### NEW MEMBERS PROPOSED.

Clifford, Thomas, M.B., B.S., Dipton.  
Waterson, W. T., Embleton.

The SECRETARIES reported that there had been presented to the Library—

1. By Dr. Auvard, of Paris, an honorary member of the Society, his work on "Obstetrics," in three volumes.

2. By Clement Stephenson, also an honorary member of the Society, "Report on Eruptive Diseases of the Teats and Udders of Cows in relation to Scarlet Fever in Man," by Prof. Brown.

On the motion of the PRESIDENT, seconded by Prof. PHILIPSON, the thanks of the Society were accorded to these gentlemen for their valuable donations to the Library.

### CASE OF PROGRESSIVE MUSCULAR ATROPHY.

Professor PHILIPSON: This man, a seaman, aged 64, from South Shields, is suffering from progressive muscular atrophy of eighteen months' duration. For fifty years has been at sea, and during



the latter years was a captain of a steamer. Has been shipwrecked four times, and has suffered other hardships and much exposure. Twenty months ago he experienced a weakness in his left arm, which gradually increased until six months ago, when he became unable to raise it. Six months ago the right arm became similarly affected. Gradually it grew weaker. Ten weeks ago he could write his name, now he can scarcely grasp the pen.

Upon examination, certain muscles are found to be atrophied. The muscles chiefly affected are the deltoids and the triceps of both arms, the muscles of both fore-arms, the extensors more so than the flexors, the interossei and the muscles of the thenar and hypothenar eminences; the levator anguli scapulæ, serratus magnus, and latissimus dorsi of both sides. The pectorals and trapezii are less affected. The fingers are partially flexed and contracted, producing a partial resemblance to a bird's claw, the *main en griffe* of Duchenne. The muscles affected show spontaneous flickerings or fibrillations. When tested with electricity, both currents bring about contractions of the muscles affected. Those on the right side are more so than those on the left.

The diagnosis of progressive muscular atrophy is based upon the increasing paresis, together with the increasing atrophy of the muscles, which still respond freely to Faradisation, beginning in certain definite groups, and slowly spreading to others.

The case is illustrative of the lower arm and upper arm types, in combination, and involving not only the muscles of the limb, but those connecting it with the scapula and trunk.

The lesion in the spinal cord is supposed to be situated in the anterior cornua, extending from the fifth cervical to the second dorsal nerves.

The treatment has been the following: The iodide of potassium, in gradually increasing doses, has been administered three times each day. The continuous electrical current to the spine, and the interrupted current to the affected muscles, has been applied every other day. A generous diet has been allowed. The patient has expressed himself as able to make more movement with his hands, but not, as yet, with his upper arms. His general health is much improved. He has now been under this treatment for one month.

Dr. EASTWOOD wished to make a few remarks as to the cause of this attack, of what was no doubt accurately diagnosed as progressive paralysis. The patient attributed it to sleeping in damp beds, and Dr. Eastwood had found this to be a probable cause in some cases. Some years ago he had himself symptoms closely resembling those of the patient, though of a temporary duration. There was loss of sensation and of power in both arms, especially the right arm, affecting his ability to write. The attack was due directly to sitting in church (after a warm walk) between the door

and the window, and it came on immediately. It was some considerable time before complete recovery took place.

Dr. GIBSON asked if Dr. Philipson had any reason to suppose that the case had a syphilitic origin?

Dr. DRUMMOND thought the remarks that fell from Dr. Eastwood illustrated well the difficulties that beset the diagnosis of the variety of paralysis to which Dr. Philipson had invited their attention, and which he had so ably described. He ventured to suggest that the case to which Dr. Eastwood had made reference was one of peripheral neuritis, cases of which often resembled progressive muscular atrophy very closely. Cases like that of Dr. Philipson were apt to be confounded with pachymeningitis on the one hand, and peripheral palsy on the other; but in his experience the chief diagnostic difficulty lay in distinguishing between progressive muscular atrophy and peripheral neuritis. It might be said that the features of the former affection were sufficiently striking and characteristic to prevent mistakes, that, touching the classical form, the slow and insidious development of paralysis in the muscles of the thenar eminence, or first dorsal interosseous, with atrophy that kept pace with the paresis, and the continuance of electrical response, could only point to the spinal lesion; whilst, on the other hand, a more acute onset (subacute), the tendency for larger muscles of the forearm (flexors and extensors) to suffer before the smaller muscles of the hand, the observation that the paralysis kept well in advance of the atrophy, and the comparatively early loss of Faradic contractility, pointed to the peripheral lesion. But the cases were not all typical: in many examples, for instance, the peripheral paralysis developed comparatively slowly, whilst it was common enough to meet with some Faradic response in the paralysed and wasted muscles. Under these circumstances, the main difficulty, he thought, lay in distinguishing a peripheral case that was undergoing improvement, during the early stages of recovery, from the anterior cornual lesion. For in the absence of a distinct and accurate history, which was seldom forthcoming, as to muscles first affected, whether the paralysis preceded the atrophy, &c., and the recollection of the fact that the electrical reaction in recovering muscles was practically the same as in the spinal lesion, the two classes presented a striking resemblance to one another. He referred to some cases in illustration of his remarks.

Dr. MANTLE: The most typical case of general muscular atrophy that I have seen was that of a seafaring man, in which case the cause was chronic arsenic poisoning.

He was one of a crew on a sailing vessel, who had the misfortune, through some extraordinary means, to get arsenic mixed with their sugar.



Several of the crew suffered severely, and this man (when I was House Physician) found his way into the London Hospital, with most marked muscular atrophy. He had such a typical "claw" hand, that Mr. Treves and Dr. Warner took a cast of it, which is now to be seen in the College Museum.

It would be interesting to know if this man has got arsenic into his system in some way or other.

Dr. BRAMWELL considered that the subjective and objective sensory symptoms, such as numbness, tingling, and anæsthesia, would generally enable a diagnosis to be made between progressive muscular atrophy and peripheral alcoholic paralysis. Also, the mode of onset was different in the two cases, being in progressive muscular atrophy very slow and chronic; whereas in peripheral paralysis it was usually more sudden, and extended over considerable areas both in the skin and muscular systems in a few days or weeks, whereas the paralysis in progressive muscular atrophy took much longer.

He considered the difficulty in the diagnosis of progressive muscular atrophy lay in the distinction of it from the subacute inflammation of the anterior horn, described as Duchenne's—ascending paralysis. He asked Dr. Drummond if in his case, in which the muscular response to electricity was absent for a time, if there was any symptoms present at the same time indicating implication of the sensory system; and also if Dr. Philipson had observed any sensory disturbances in his case.

Professor PHILIPSON replied to the remarks made, and in doing so said he regarded cold as being the exciting cause in this case.

#### CASE OF MYXŒDEMA.

Dr. FLYNN: This man, J. W., æt. 45, married, a shipyard labourer, has always been very healthy with the exception that he had a chancre twenty-four years ago. His family history is very good.

About two years ago he first consulted me for pains in his back. At that time he had œdema of the face. His urine has been several times examined, but contained neither sugar nor albumen.

*Present condition:* The face is swollen in every feature, so as to suggest the presence of renal disease. He is very anæmic, the eyelids are enlarged, the alae nasi are thickened and broadened. This œdema does not pit on pressure. The skin over the body is thickened, translucent, dry, and rough; perspiration being altogether absent. His speech is slow and laboured. His hair scanty, and teeth bad. He finds the greatest possible difficulty in keeping himself warm—always complaining of feeling cold.

The urine is about double the normal quantity, s.g. 1020, contains neither albumen nor sugar. He is gradually getting feebler, and has not been able to follow his employment since December last.



## CASE OF SOLID ŒDEMA.

Dr. OLIVER: This young woman, who is aged 23, was sent to me in September last, complaining of swelling of the legs of three years' duration. She gives us a good family history, and beyond having had scarlet fever at the age of 6, and rheumatic fever at the age of 17, she herself enjoyed good health until  $3\frac{1}{2}$  years ago. At this time she was crossing a road when she fell, injuring her leg. For the next day, and for several weeks after, the right leg was painful and swollen. The injury, in short, was followed by an attack of erysipelas. She was attended by her doctor for a month, after which she consulted a bone-setter, who, she says, "worked the ankle about a good deal"—a manœuvre which was accompanied by pain, and not followed by a disappearance of the swelling.

Her features are rounded, and the whole body is plump but soft. The skin perspires freely, and she is pale. Menses are regular. The hands are full, and at first seem as if swollen, but there is no distinct pitting on pressure. The thyroid gland is small and the neck beefy. Beyond reduplication of the first sound heard over the mitral area, the sounds of the heart are healthy. The respiratory murmur is normal. Nothing abnormal is detected in the abdomen. The urine is healthy. Both legs appear swollen; the right one in particular; it looks like elephantiasis, only the skin is thin and soft. It is difficult to produce pitting on pressure, but it can be done if the pressure is well maintained, and then it is noticed that the pit does not fill up quickly. The right foot measures around the instep  $11\frac{3}{4}$  inches, and the left 10 inches. The right calf measures  $14\frac{3}{4}$  inches, and the left  $14\frac{1}{4}$ . An examination of the blood under the microscope shews the red blood discs to be paler than in health, and the white not only increased in numbers, but diminished in size. As many as twenty white cells are seen in the field, the size of none of them being as large as the red. Under treatment by vapour baths, applied specially to the leg, Scott's dressing, india-rubber bandages, and tonics, the size of the leg has decreased; but on the whole treatment so far has not been satisfactory. Is the case one of elephantiasis, and due to a hypertrophied condition of skin and subcutaneous cellular tissues? The history of erysipelas rather lends weight to this supposition.

Dr. SLATER: The patient shewn by Dr. Oliver came under my care two years ago, on account of obstinate constipation and general ill-health. I suspected kidney mischief, owing to the pallor and puffiness of the face and the œdema of the eyelids. There was, however, no albumen, and the heart sounds were normal, save for a re-duplicated second sound. The hands and feet seemed characteristic, especially the right leg and foot; the

swelling was enormous, but there was no pitting ; the skin was soft and supple. I looked upon it then as "elephantiasis."

This affection was congenital. Her father is 5ft. 4in., and weighs 19 stones ; he enjoys good health ; his hands, feet, and legs have marked symptoms of increased cellular growth which does not pit on pressure, and there is no albumen in the urine. The mother, who is the subject of a mental affection, is said, (physically) greatly to resemble the daughter.

As the right foot did not improve, the girl was sent by her parents to a bone-setter, who called it a dislocation, and nearly succeeded in producing such an injury. His manipulation also excited much erysipelatous inflammation, which ended in a slight increase of circumference of the leg. From the first the treatment has been both general and local. As there was constipation, sulphate of iron and sulphate of magnesia were given internally ; at a later period these were replaced by perchloride of iron. Arsenic and Donovan's solution were also tried. The local treatment consisted in the use of Martin's bandage. During my holidays Dr. Oliver kindly took charge of her, and on my return she went, at my advice, to the hospital to continue under his care.

Mr. WILLIAMSON remarked that he saw a case very similar to this, which was treated by elevation of the leg upon an inclined plane, by compression with elastic bandages, and by the application of cold. In the course of six weeks the limb was reduced to its normal size, but soon after the patient began to move about the leg returned to its former condition. In another case, the same treatment was followed by the same result ; whereupon the surgeon in charge ligatured the femoral artery. The swelling of the leg went down, but recurred when the collateral circulation was established and the patient was able to use the limb. Although this operation is tempting, it is not justified by the result.

Dr. GOWANS agreed that the case shewn by Dr. Flynn was a case of myxœdema. He would draw attention to two points in the case : firstly, that the temperature was subnormal ; and, secondly, that the thyroid was, as far as he could make out, atrophied.

Dr. BRAMWELL had recently met with a case of congenital solid œdema of the little and ring finger of the left hand, in which various forms of treatment had been of no avail. The œdema was reduced by pressure, but returned after the bandages were removed. He believed the pathological condition was some structural change in the cellular tissue alone, congenital or otherwise, as all the other tissues in the case appeared quite normal.

Professor PHILIPSON, in reference to Dr. Flynn's case, suggested the treatment by arsenic. He recommended five minims of the liquor arsenicalis three times each day, and that this should be gradually increased up to ten minims to the dose.

## PATIENT WITH CLEFT PALATE.

Mr. WILLIAMSON: Mr. President,—At first glance this case would be taken to be one of ordinary cleft palate, but on looking closely at it, there is no bifid uvula, and the soft palate runs off into the pillars of the fauces rather suddenly.

Some nine months ago he was treated for deafness by a medical man, who looked into his mouth, and observed nothing wrong; so I conclude that the palate was sound at that time. Six months ago his breath became exceedingly foetid, and then for the first time a small perforation was seen at the anterior part of the soft palate. This was treated locally with a white powder, and constitutionally with a grey powder. The perforation extended backwards in the middle line, and after two months the splitting was complete.

The question of syphilis has been carefully gone into, but no history of it can be obtained, either in respect of the father or mother, or of the child.

I have no doubt that during the attack of ozæna an ulcer on the floor of the nostrils had penetrated the soft palate, and had then run along the raphe in the median line.

There is still some thick and putrid discharge from the nostril, and when that is removed I propose to pare the edges of the palate, and unite them in the ordinary way.

## CASE OF EXTERNAL URETHROTOMY.

Mr. WILLIAMSON: Mr. President,—This patient was admitted here in the middle of last November, suffering from retention of urine. It appears that he had gonorrhœa fourteen years since (he is now 34 years of age), and seven years ago he had some difficulty in passing water. He contracted another gonorrhœa a fortnight before admission, for which he used an injection. He asserts that for four days previous to his admission he did not pass any water. An attempt had been made to pass a catheter, but even under chloroform this had failed.

The bladder was greatly distended, and there was a tense fluctuating swelling in the perinæum. The penis and scrotum were swollen also. A catheter was passed down to the abscess, but it would go no further, and a foul-smelling mixture of pus and urine escaped through it. He was put under chloroform, and I was fortunately able to pass a large staff into the bladder. I cut down upon this, through the perineal abscess, with a free incision, and a quantity of urine gushed out. The bladder was well washed, and a large lithotomy tube was put through the incision into it. Some free incisions had to be made into the œdematous parts a day or two later, as the urine had extravasated rather widely—up to the umbilicus, in fact. A good deal of sloughing, chiefly subcutaneous, occurred; but the urine flowed freely, and the man's general con-



dition improved rapidly. A large slough formed on the dorsum of the penis, which is said by some to herald a fatal termination. After a time the lithotomy tube was removed, and a catheter was passed. After some few difficulties, due to the irritation of the catheter in a urethra affected by gonorrhœa, the perineal wound gradually closed, and he was able to pass urine through the urethra. He can now hold his water for four or five hours, and he says he passes a much larger stream than he did before the attack came on. I attribute his recovery to the free incisions and drainage, and to the constant care with which he was looked after by the House Surgeon.

Mr. RUTHERFORD MORISON: It was rare for recovery to follow so extensive an extravasation of urine as had occurred in this patient, and that Mr. Williamson was to be congratulated on the successful result of his method of treatment. The case emphasised the fact, often lost sight of, that gonorrhœa might be a most serious disease, and the members of the Society would notice when my case was brought forward that death followed as a result of complicated gonorrhœa.

Dr. BRAMWELL related a case which occurred in the Infirmary, under the care of Dr. Hume, in which the whole of the penis and skin of the scrotum sloughed away. Recovery in this case was due entirely to early and free incision, with external urethrotomy and careful removal of all discharges.

The PRESIDENT agreed with Mr. Williamson as to the value of free incisions.

#### SPECIMENS FROM CASES OF CHARCOT'S JOINT DISEASE.

##### NO. I. SPECIMEN.

Dr. PROWDE: E. E., æt. 54, a widow, admitted into the Sunderland Union Infirmary on May 19th, 1884. Informs me that up to her present illness she has always enjoyed good health and worked hard in the fields.

No hereditary history of rheumatism or joint disease. About a year before admission, she states that she had difficulty in walking and other symptoms pointing to loc. ataxia. Shortly before admission, she was seized with sudden pain, followed by swelling of left knee.

On admission, the left knee was found considerably enlarged, with effusion into joint; slight pain. She was unable to walk, and never used the leg again.

The pain disappeared and the effusion gradually subsided. Dislocation of head of tibia and fibula, backwards and outwards, was noticed; this soon became very marked (as the photo. shows), and the joint had a flail-like movement.

There was not much enlargement of end of femur or head of tibia ; no osteophytes could be detected.

No other joints were affected.

The patient was too ill to be shewn at the March meeting of the last session, and died the following July from general paralysis.

On opening the knee-joint, two or three ounces of sanguineous fluid escaped. The anterior crucial ligaments had disappeared, but the posterior remained intact. There were no new growths of bone, either attached or unattached, with the exception of a few very small excrescences over articular end of femur.

The end of the femur was diminished in size and somewhat pointed. The head of the tibia does not appear enlarged.

The dislocation of the fibia and tibula, backwards and outwards, is very evident.

#### NO. II. SPECIMENS.

These specimens were shewn and a history of the case given at the March meeting of last session, and have been fully reported in the Transactions of our Society.

I have simply shewn them, as I thought it would be highly interesting to many to have the opportunity of comparing the specimens taken from the two patients.

The points of difference to be noticed are—

(1.) That in the man a second joint (the hip on the opposite side) was implicated.

(2.) That there was in his case greater enlargement of end of femur and head of tibia.

(3.) That there was much new bony growth, both attached and unattached.

(4.) That there had been absorption of bone, especially as regards the neck of the femur, which had entirely disappeared,

I am sorry to say that in neither of the cases could I obtain the brain or spinal cord, Dr. Buzzard wrote me with regard to these cases, and he considers them thoroughly characteristic of Charcot's disease. I had previously promised No. 2 specimens to the Museum of the College of Medicine, and I have now very great pleasure in presenting what I will call No. 1 specimen to the same museum. I hope to obtain further photos. of these two interesting cases, and I shall be glad to give copies of them also.

#### EPITHELIOMA OF CERVIX UTERI.

The PRESIDENT said : I have here the uterus and fœtus at term which I removed from a woman æt. 33, on the 12th ultimo, during labour, which was obstructed by this mass of cancer, which, as you see, implicates the whole of the cervix and infiltrates a portion of the body of the uterus. The operation I will describe in a paper later on, but in the meantime pass the specimens round ; and at

the same time would call the attention of the members to the fact that the relative position of the round ligament, the Fallopian tube, and the ovary, is very different to the erroneous representation in most text-books of anatomy, *e.g.*, Juaiss, Gray, Flint, Sappey, &c., and is exactly as I described in a paper read before the Obstetrical Society of London, in April, 1885, namely, that the normal condition is to have the broad ligament in three folds—the anterior fold containing the round ligament, the middle fold containing the Fallopian tube, and the posterior fold containing the ovary, which is generally superior to the tube.

#### BREAST TUMOURS.

##### FIRST CASE.

Mr. RUTHERFORD MORISON: This large tumour, weighing 4½lbs., was removed by me from a woman of 38, last month. The case is interesting as it illustrates in one person the close connection between sarcoma tuberculosis and Hodgkin's disease, and the difficulty in some instances of saying where one begins and the other ends.

I saw the patient first 2½ years ago, when she called upon me on account of swellings on each side of her neck. She was in poor general health. On each side of the neck there were large masses of glands. The supra-clavicular, axillary, and inguinal glands were also involved; and this fact, together with the anæmia and debility present, led me to regard the case as one of Hodgkin's disease. Under treatment of arsenic the general condition improved, and, with the exception of some glandular enlargement on the right side of the neck, the swellings disappeared. Six months after the commencement of the illness, one of the neck glands suppurated. I opened the abscess, and at the same time scooped out some softened degenerated gland, resembling an ordinary strumous gland. At this time my attention was drawn to a swelling in the breast. I may mention that the family history was tubercular.

In the upper part of the breast a firm even wedge-shaped swelling, with apex of wedge towards nipple, was felt. This was marked when the portion of breast affected was grasped between the fingers, but nothing could be felt on putting the flat hand over the mass with the patient lying on her back. The axillary glands on both sides had again become somewhat enlarged. From this examination I concluded that the breast swelling was due to chronic inflammation of a similar nature to that affecting the glands. It was evidently no tumour. She again took arsenic. A second time suppuration occurred in some of the neck glands, and under ether the abscess was opened, and the diseased glands, similar in character to the first, removed by scooping. On both occasions the wounds healed quickly, and without causing trouble.



Little change was noticed in the breast for the first year except that it varied in size from time to time. During the second year it increased slowly in size, and could be defined in such a way as to make me suspicious of tumour formation. Three months before the operation I saw the patient, but could arrive at nothing more definite than a grave suspicion as to the nature of the swelling. Fearing an operation, she did not call upon me again for three months, when a remarkable change had occurred. The growth had increased with great rapidity, considerably more than doubling its size, and the diagnosis had now made itself.

The breast was removed in the ordinary way. The large skin flaps were thin, and full of dilated veins. The edges of the wound were brought together with catgut sutures. The catgut ligatures were left long and hanging out of the lower corner of the wound, and the wound dressed with ordinary antiseptic precautions, gauze, and wound-wool pads. At the end of a week, as some discharge had stained the outside dressings, the first dressing was removed. A small portion, about size of onepenny piece, of one of the flaps had sloughed; and this, together with the fact that the bandage had become loosened, and the parts were very vascular from dilated veins, occasioned this trouble. A little iodoform was sprinkled on the slough, and a similar dressing to the first reapplied. In a fortnight the second dressing was removed. The granulating surface left by the slough, which alone remained unhealed, was dressed with ointment. On the sixth day the patient got out of bed; her temperature never reached 100°, and, except for the changing of the dressing, her recovery was uninterrupted.

I have now done over forty excisions of the breast, in many cases removing at the same time the axillary glands. The majority of these have healed under one dressing, as I have been endeavouring to arrive at this result for the past ten years. Of the last fifteen cases this is the only failure, so that I am in a position to say, with some confidence, that however extensive a wound may be left, after breast operation, no more drainage is necessary than that afforded by a few catgut threads, and that the wound and patient need never be disturbed after a dressing properly applied at the time of the operation.

#### SECOND CASE.

An example of ordinary scirrhus of the breast and axillary gland from a patient 50 years of age.

The interest of this case depends on their being two forms of growth in the breast. Seven years ago the patient consulted me with a large fibroid tumour in her uterus, and a similar small tumour in the right breast. I advised her, considering her age, to have nothing done to either, and that her prospects, without operation, were good. Last month she again consulted me, and

reminded me of our former interview. In addition to this old fibroid nodule in the breast there was now scirrhous growth of a year's duration, which unfortunately involved the axillary glands as well. The whole disease was removed by my brother, and the wound healed in three weeks with one dressing, except the granulating surface which usually remains at the lower end of the wound.

INTRA-PERITONEAL RUPTURE OF BLADDER FROM RETENTION OF URINE ;  
ABDOMINAL SECTION, AFTER FOUR DAYS OF RETENTION AND FORTY-  
EIGHT HOURS OF RUPTURE ; SUTURE OF BLADDER ; DEATH EARLY  
ON THE FOURTH DAY FROM GASTRO INTESTINAL CAUSES.

Mr. RUTHERFORD MORISON : For leave to publish the case I am indebted to Dr. Hume, in whose absence the patient came under my charge, and for most of the particulars I am obliged to Dr. Parry, House Surgeon of the Newcastle-on-Tyne Royal Infirmary.

W. McNally, æt. 25, was admitted to the Infirmary on 20th December, 1888, about four o'clock. The patient stated that he was suffering from "stone in the bladder," and was very ill because he could pass no water.

The history of his illness is that for a month he has had difficulty in micturition, which he thinks was caused by an ordinary gonorrhœa. A fortnight before admission he became the subject of a "chordee," which caused complete retention of urine for some twelve hours. Finally this subsided, and he was able to pass his water, not freely, but with difficulty, as it only came away in small quantities with great pain and frequency. This state of affairs lasted until four days before admission, when complete retention occurred, and he has passed no urine since. During this time he suffered great pain, and had constant desire to micturate, except on the last two days. On the second or third day of this retention, he cannot definitely remember which, whilst vainly endeavouring to pass water he felt "something give way," and was immediately seized by a burning pain, which spread all over his belly and "flew to his heart." He vomited at once, and felt very weak, though relieved of the frequent desire to micturate. The vomiting continued till his admission, and he could get no sleep for the pain and swelling in his belly. During the retention several attempts had been made to give him relief by catheterism, but without success. He has had no injury during his illness.

*On admission :* Patient collapsed ; drawn, anxious countenance ; small, thready, frequent pulse ; frequent shallow respirations ; temperature normal. Since coming in he has vomited some coffee-ground fluid. On passing a black No. 8 French catheter, the bladder was apparently easily entered, and about 3 ozs. of urine, slightly smoky, was drawn off. After the withdrawal of



the instrument a small quantity of sanious pus escaped from the urethra, and some was found in the eye of the catheter.

On examination of the abdomen, it was found to be tense, swollen, and tender—tympanitic all over, except in the flanks and lower parts. The dulness varied according to the position of the patient, and there was fluctuation from side to side.

Intra-peritoneal rupture of the bladder was diagnosed, and the patient chloroformed with the intention of completing the diagnosis, and discovering and (if possible) suturing the wound, which was thought to be small, in the viscus.

*Operation.*—A No. 14 French silver catheter was introduced into the bladder, and three pints of a warm boracic solution pumped carefully, and without meeting with any resistance, through it. The dulness in the flanks was found to increase in direct proportion to the amount pumped through the catheter. On removing the plug from the catheter, only half-a-pint of lotion returned,  $2\frac{1}{2}$  pints being retained. The catheter could not be passed through the opening in the bladder.

A median abdominal incision was now made below umbilicus, about four inches long. The peritoneum was distended with fluid, which escaped on opening it to the extent of about three quarts. The intestines were held back by a flat sponge, and a small round opening, scarcely so large as a split pea, and of grey ashy colour, was found at the superior portion of the posterior wall of the bladder. This was closed by two interrupted sutures of fine silk introduced after Lembert's method, and the peritoneal covering of the bladder was brought over to cover these by a continuous suture of fine cat-gut. The abdominal cavity was well washed with warm boracic lotion, and carefully dried with sponges.

A second quantity of boracic solution was now injected into the bladder, which was distended by two pints, and found to be water-tight. The abdominal wound was sutured, a drainage tube introduced, and the patient put to bed better than when the operation was commenced. (As soon as the abdominal tension was relieved by incision of peritoneum, ether was given instead of chloroform.)

*After Progress.*—Two hours after the operation he was very well, and felt as if he wanted to pass water. This he was not allowed to do but by a soft catheter. 16 ozs. were drawn off. Two hours later 12 ozs. were similarly removed, then every two hours after, 6 ozs., 4 ozs., 2 ozs., 3 ozs.,  $2\frac{1}{2}$  ozs., 0, 2 ozs., 1oz. The first urine drawn off was slightly tinged with blood. All the rest normal.

During the first 24 hours he perspired profusely, and his pulse gained in tone. He complained of thirst, which was relieved by small quantities of soda water, potass and brandy, soda and milk which the patient retained. He was restless and a difficult man to manage. There was no pain, tenderness, or tympanites, and his chances now seemed very good.



Dec. 27, 11 a.m. Dressed. Abdomen aspirated with syringe. About 3i of bloody serum, free from odour, removed. On the afternoon of to-day, the patient's bowels were moved copiously twice. The motion is very liquid and of the same coffee-ground character as the previous vomit. Evening: Pulse very frequent (120) and thready, T. 97·6, and not so good as in the morning, though not worse than when he was admitted. He vomited once some coffee-ground fluid.

Dec. 28. Pulse weak and rapid; not recovered from collapse of last night. One pint of milk, one egg, one wine-glass of brandy every 4 hours, and to be allowed drinks of tea, and soda and milk for thirst. Enemas of half-pint of beef tea with *lr. opii.* when required. The abdomen is flat and free from tenderness or pain. He retains all his nourishment. Diarrhœa of some coffee-ground fluid came on in the afternoon of to-day, and became so excessive that starch and opium enema was administered. *Pil. opii.* did nothing to check it. For a time after starch and opium, it was relieved, but returned, and continued till his death at 2·30 o'clock, on the morning of 28th December, 1888.

The catheter was only used once (when his bladder was found to be empty) during the last 24 hours, as he passed water himself when using the bed-pan. The patient apparently died from collapse ending in syncope.

Dr. Drummond's *post-mortem report*.—Body somewhat emaciated. Rigor mortis present. A wound  $4\frac{1}{2}$  inches long in the mid-line of abdomen, closed by wire and catgut sutures. The edges were united in places. No suppuration about the wound.

*On opening the abdomen*, the small intestine was injected here and there, and in places coils were adherent by lymph. The hole, which indicated the situation in which the drainage tube lay, was surrounded by lymph and intestine. On injecting the bladder and distending it, the line of suture was brought into view, and the bladder found to be water-tight. A little lymph was found in the bottom of the pelvis, but no fluid. The intestines were opened from the stomach downwards.

*Stomach*.—Mucous membrane injected in parts, and covered with mucus. One or two circular ulcers were found.

*Intestines* in a similar condition to stomach. There was also evidence of enteritis. Bladder, prostate, and urethra were removed.

*Bladder*.—Inner surface of bladder of a purple colour, much injected. Corresponding with the suture, was found internally a circular ulcer, which was rendered obvious by the perforation.

*Prostate* enlarged; in size equal to a walnut. There was also an abscess in the right lobe.

*Urethra* presented nothing worthy of importance.

Mr. RUTHERFORD MORISON said, in reply to the President, that experience in the previously recorded cases shewed a successful result has always followed passing the catheter only when required, and an additional argument in favour of that course in my case was the presence of gonorrhœa. As to excising the ruptured site, the operation would have been prolonged, which, considering the condition of the patient, I was anxious to avoid; then I was confident of being able to close the opening satisfactorily without this. Surgically it was a success. It was the medical conditions that caused death.

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## NOTE ON THE GASTRO-INTESTINAL SYMPTOMS ASSOCIATED WITH MOVEABLE KIDNEY.

By DAVID DRUMMOND, M.A., M.D., Physician and Pathologist to the  
Royal Infirmary, Newcastle-on-Tyne, &c.

Some little time ago I read a paper before the members of the North of England Branch of the British Medical Association, in which I drew attention to moveable kidney as a cause of more or less distressing symptoms, when I ventured to point out that this condition was of much more frequent occurrence than was generally supposed. Twelve cases were detailed, and stress was laid upon the leading clinical features of the anomaly. Since then I have been struck by the fact that certain digestive disturbances are often associated with moveable or displaced kidney, and it is to this group of symptoms, in which can be traced a marked family resemblance, that I desire at present to draw attention. I have notes of twenty-one cases of moveable kidney, in many of which these symptoms form an important part of the clinical picture; but I shall simply refer to a few to illustrate my subject, for in a future paper I hope to deal with the more general considerations in connection with moveable kidney, such as its etiology, significance, and treatment.

CASE I.—Mrs. S., aged 49, was placed under my care by Dr. Abbott, of Carlisle. She was a widow, and the mother of two children. Her more distressing symptoms had lasted for eight years, and dated from the time of her husband's death, when her health was much affected by a long period of nursing, with mental anxiety and much physical exertion. For long she had been the subject of indigestion, and was often troubled with a dragging sensation beneath the right breast which extended into the hypochondrium and lumbar region, but these symptoms were all comparatively slight until after the period referred to. She now experienced the peculiar sensation of something moving about in the right side of her abdomen, which felt, as she remarked to a friend, "like a live frog." All her old symptoms of dyspepsia became much more pronounced, and she complained of frequent attacks of colic, with flatulent distention, loss of appetite, pain in the epigastrium and right hypochondrium; was obliged to give up animal food almost entirely, and live upon milk, weak tea, and bread and butter, as butcher meat aggravated all her troubles. The pain and dyspeptic symptoms were usually at their height two or three hours after food, though discomfort was felt almost immediately



after its ingestion. The bowels were usually constipated; and about three years before she came under my notice, she detected the presence of mucus in the stools, and occasionally some blood. She complained chiefly of the constipation, pain some time after food, with flatulency, and the mucous stools. I was repeatedly shewn the evacuations, which at times were largely composed of jelly-like mucus. Both kidneys were moveable, but particularly the right, which could be pressed down as low as the crest of the ilium. Deep pressure was borne badly on account, I believe, of the tender condition of the ascending colon, for when the kidney was isolated, it could be squeezed without producing much pain or the "sickening" sensation which has been referred to by writers on floating kidney as something almost distinctive.

CASE II.—Mrs. A., aged 54, the mother of three children, suffered for years from a pain of a burning character in the lower part of the epigastrium towards the right side. This pain often extended into the right lumbar region, and up to the shoulder blade. Exertion, such as lifting heavy weights or walking, always increased the pain, whilst rest in the recumbent posture relieved it; and it was very noticeable that the degree to which she suffered depended largely upon her general health. For example, the attack for which I saw her in the first instance was obviously determined by the fatigue and anxiety consequent upon a long case of illness in a member of her family. From time to time she experienced attacks of gastro-intestinal catarrh, which for the time quite incapacitated her. These illnesses nearly always commenced with the feeling of chilliness, and frequently, she believed, arose from unusual exertion, as in walking. Then the mouth became sore, and aphthous patches made their appearance on its mucous surface. The tongue was red, and but slightly furred; the appetite was lost; and she suffered from a general feeling of illness, with slight fever towards night. Subsequently pains, more or less diffused over the abdomen, were complained of, with special soreness above and to the right of the umbilicus. The bowels, which were usually constipated, became still more so; and after the lapse of a week or ten days from the onset, mucus was noticed in the stools. This varied much in quantity—at times long thin pieces of tough fibrinous mucus resembling tape-worm, obviously casts of the intestine, were passed; or again, a quantity of shreads with mucus could be seen. These attacks compelled her to remain in bed, and usually lasted some weeks. Here also a moveable right kidney was a prominent physical sign.

I now come to the case (III.) of a very intelligent and well-trained nurse from one of the Edinburgh Nursing Homes, who consulted me for dyspepsia with abdominal pain and general debility, which necessitated rest from her arduous labours. She was 30 years of age and unmarried, and dated her symptoms from

an attack, supposed to be peritonitis, which occurred ten years before, and was characterized by pain in the lower part of the abdomen, with severe vomiting—the result, she thought, of cold. After this illness she became thin, and suffered from indigestion with loss of appetite. Soon afterwards she joined a large hospital as a probationer, but her health remained feeble, and the food supplied to her never seemed to agree. Four years later she was obliged to leave her employment for a time owing to a return of her old indisposition. About seven weeks before she came under my notice she was again laid up; she now suffered from diarrhœa, with pain in the right lumbar region extending into the hypochondrium and towards the umbilicus, and at times over to the left side of the abdomen. These symptoms were always worse at night or towards morning. The stools contained a considerable quantity of mucus, and attacks of diarrhœa alternated with constipation. The appetite was fair, but she was afraid to eat, as food produced pain in the epigastrium. The right kidney could be felt below the ribs, and it appeared to be free from tenderness.

CASE IV.—Mrs. H., aged 32, seen in consultation with Dr. Abraham, Gateshead. She was a thin and delicate-looking woman, without any children. When she was 21 years of age she suffered from a severe attack of dyspepsia, with pain across the upper part of the abdomen and vomiting. About this time she detected “a lump” which moved about in the anterior part of the lumbar region on the right side. A little later this disappeared in an unexpected way, and for a time she remained free from pain, and was able to go about in comparative comfort. Some months before I saw her the pain and vomiting returned, and once more she became a martyr to dyspepsia. This was shewn by pain and fulness some time after food, in addition to the symptoms of gastric irritation. She also suffered much from aching pain in the right lumbar region towards the back whenever she stood or exerted herself. In this case there was marked constipation, but no mucus has been noticed in the stools. On examination I found both kidneys freely moveable, particularly the right.

It would be easy to multiply cases of this nature, in which are associated in a striking manner kidneys having very loose attachments, and a particular form of indigestion, but I shall just refer to one more case, viz., that of a man with floating kidneys on whom Mr. Dodd operated. The case was brought under the notice of the members of the Society, though I think particular stress was not laid upon the dyspeptic symptoms:

CASE V.—T. A., a joiner, aged 33, was admitted into the Royal Infirmary, under my care, for anomalous abdominal pains. He had suffered for years from aching pains in the lumbar regions and lower part of the abdomen, chiefly on the right side, but was able to follow his employment until nine months before his admission into hos-



pital. Recently he had lost flesh, and was at time of admission a stone and a-half below his average weight. His dyspeptic symptoms were pain below the floating ribs on the right side, loss of appetite, vomiting, flatulency and constipation, with frontal headache and marked mental depression. The pain, which was induced by food, was usually at a maximum an hour or two after meals. Mucus was frequently present in the stools.

It will be remarked that the symptoms to which I have thus briefly alluded at once suggest a somewhat common form of intestinal (or, as I prefer to call it, gastro-intestinal) catarrh—a variety of dyspepsia manifested usually by a sense of local or general abdominal tenderness, with more or less gaseous distension, pain, constipation with mucus in the stools, loss of appetite, general feeling of illness, &c.; the pain and discomfort generally attaining a maximum severity from one to three or four hours after food. A form of indigestion that resembles closely that which we meet with in cirrhosis of the liver, and also in many cases of valvular disease of the heart.

The question naturally arises, are we justified in looking upon this association as more than fortuitous? Can the displacement of the kidney be regarded as the cause of the catarrhal condition of the intestinal tube that seems to underlie this form of dyspepsia? It is a difficult question to answer, and I feel that it would be unwise to advance a statement or attempt to formulate a definite theory, founded on the cases I have seen; but I confess I am strongly inclined to the belief that gastro-intestinal catarrh will be found to be one of the symptoms of kidney displacement, or ectopia, as Trousseau would call it. It has been suggested that the kidney may interfere with the functions of the duodenum by dragging upon that part of the bowel; but I do not think this would be sufficient, nor is it likely that it acts in a purely mechanical way. I would rather suggest that the influence of the displacement upon the bowel, if any disturbing effect be admitted, is purely nervous, and is brought about by irritation of the renal plexus of nerves and the ganglia with which they are intimately associated. Such nervous disturbance, in all probability, may simply render the mucous tract more susceptible, whereas the determining cause of the attack may be improper food, cold, unusual exertion, &c.

As regards treatment directed against these dyspeptic attacks, I have found rest in bed, with very careful diet, of great service in shortening the period of illness, and small doses of iodiform ( $\frac{1}{4}$  gr. in pill two or three times a day) has been very useful in subduing the mucous discharges.

Dr. GIBSON said that in the cases of floating kidney which had come under his observation, he had never found evidence of the



gastro-intestinal disorders referred to by Dr. Drummond. In the cases related the gastro-intestinal symptoms were, in Dr. Gibson's opinion, accidental only, and bore no necessary relationship with displacement of the kidney.

Dr. MANTLE: I have recently had a case under my care, now considered to be one of moveable kidney, which has been very confusing to the leading London gynæcologists. I was called to see a young lady who was suffering with distressing vomiting. I was told by her friends that she was wearing a pessary. Thinking that her vomiting might be reflex and caused by the pessary, I felt it my duty to remove it. I did so, and the vomiting very soon ceased. This pessary had been placed by a most distinguished gynæcologist, and I was told by the patient that her friends had been informed by him and others that the uterus was displaced. She had been living the life of a confirmed invalid for three years, and her friends were afraid for her to make the least effort. After making two examinations of the uterus, and being satisfied that there was then no flexion, whatever there might have been, I strongly recommended my patient to do without the pessary, and at once to begin to take some exercise. She did so, and in a few weeks played tennis regularly, with the result that a general bodily improvement took place. Although the vomiting was entirely absent for a month, and the improvement in health so marked, it returned at intervals. I was asked by the friends to write a report of the case for her usual doctors, when she left for the south, and give my opinion. After watching the case carefully and making several examinations, I must say that I regarded the vomiting as due to ovarian irritation; first, from the sensitiveness of pressure over the right ovarian region, and, again, from the fact that the nausea or vomiting was always preceded by a pain running from this part to the groin. I thought it probable there had been slow inflammatory changes in the ovary, resulting in adhesions. My report was placed in the hands of her doctor, and I received a letter from this distinguished gynæcologist, telling me that the patient was suffering from acute retroflexion.

The friends not being satisfied, with the sanction of this gentleman, another leading gynæcologist whom I recommended and had great confidence in, was consulted. He writing to me a few weeks ago, gave it as his opinion that the uterus and ovaries were perfectly healthy, but he was inclined to consider the case as one of moveable right kidney. If this be so, it is extraordinary that five or six of the leading physicians and gynæcologists should have overlooked it, and it brings before us very prominently the fact that symptoms of floating kidney may be confused with those of the uterus and ovary which I have been expecting Dr. Drummond to tell us in his paper. I must say, one symptom, the passing of mucus by the

bowels, which Dr. Drummond has laid stress upon, was present in my case. A very important point to be considered in a case of moveable kidney is, should we tell our patient of the condition of affairs? For my own part, I think it wiser not to do so. I have known one case in which infinite harm was done by the doctors imprudently telling the patient she had a floating kidney, and a fairly happy life was rendered thereby a very sad one. Another point is, ought not the question of operation to be considered more often? Mr. Dodds and Dr. Drummond shewed a case last year which had been operated upon, with, I believe, great success, so far as the symptoms were relieved. The question is, should we not operate more frequently?

Dr. BRAMWELL had under treatment, last summer, a case in which all the gastro-intestinal symptoms described by Dr. Drummond were present, and one kidney was slightly moveable. He did not at the time associate the two conditions; and with regard to treatment found codeia in 2 gr. doses had a very good effect in relieving the intestinal pains, and regulating the action of the bowels. This seemed to support the "nerve theory" of the symptoms, as codeia acted by allaying the irritability of the sympathetic system.

Dr. DRUMMOND, in reply, repeated that it was his desire on that occasion to make reference only to the gastro-intestinal symptoms of moveable kidney. He was pleased to hear that Drs. Mantle and Bramwell had met with cases that corroborated his observations.

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## THE TREATMENT OF LABOUR COMPLICATED WITH MALIGNANT DISEASE OF THE CERVIX, WITH NOTES OF A CASE OF HYSTERECTOMY DURING LABOUR.

By JAMES MURPHY, M.A., M.D., President of the Society; Fellow and Member of Council of the British Gynæcological Society; Membre Correspondant de la Société de Médecine Pratique de Paris, &c., &c.

The occurrence of labour in uteri affected with cancer of the cervix is happily of such rare occurrence that its treatment is but very briefly alluded to in even modern text-books of obstetrics; but as it occurs from time to time, and as it is of such serious import, it seems to me a subject well worthy of the consideration of this Society, which numbers amongst its members many surgeons ready and capable of doing every operation that modern science has placed within our reach.

In the short paper that I venture to submit to you to-night, I do not purpose to make any attempt at an exhaustive report on all that has been done in the matter, but rather to lay before you the various modes of procedure one has to choose from, with my own views on their advantages and disadvantages; and, above all, to invite discussion and to hear the experiences and opinions of those members who have treated cases of the kind, in the hope that we may be able to justly appreciate the various methods of treatment, and select those that are the best.

Some writers believe that cancer of the uterus favours the occurrence of pregnancy, amongst whom is Cohnstein, who relates a case in which, with the appearance of cancer in a uterus which had been twelve years barren, conception took place, and points out that pregnancy, in cases of cancer occurs more frequently towards the end of the child-bearing period, while the reverse is the case in the healthy uterus; and also draws attention to what has frequently been observed, namely, the increased sexual desire in many women suffering from cancer. One such case as he records has, of course, but little weight, even apart from the fact that other causes besides the cancer may have been at work to produce the pregnancy; and as regards his second reason, it is readily explained by the fact that cancer occurs more frequently towards the end of the child-bearing period; and as regards his third reason, the increase of sexual desire is by no means necessarily followed by an increased conceptive power; and my own experience, deduced from very many cases of cancer, seen every year among women not past the climacteric, is in accord with D'Outrepont and Herman that occurrence of cancer is rather—I would say decidedly—against the occurrence of pregnancy.



Another point worth alluding to is, what effect has the pregnancy on the cancer? It is generally believed, and I think it is the case, that pregnancy, while it lasts, has a benign influence on phthisis. Has it such an influence on cancer? Some writers believe that pregnancy has the effect of retarding the growth of cancer, and Spiegelberg relates a case where a commencing cancer of both lips of the os remained the same from the third to the ninth month of pregnancy, and after labour grew rapidly. Chantreuil, Barnes, and most writers take the opposite view, and I think correctly so, as we would naturally expect that the increased vascularity would favour the growth of new cells, and the greater the blood supply of cancer the more rapid its growth. An interesting case is recorded by Mattei of a cancer of the breast, which appeared in the early months of pregnancy and gradually increased up to the term; it then remained stationary for six months, when the patient again became pregnant, with the result that the tumour again commenced to grow, and ulcerated. Robert Lee also reports a case where the symptoms became aggravated in a case of cancer of two years' standing, on the occurrence of pregnancy. Oldham and Greenhalgh report cases where, after the Cæsarian section, the symptoms of the cancer were very much abated. This brings me to a practical point, which I have no doubt many have experienced, and that is it occasionally happens that one is in doubt as to the diagnosis of a hard and gristey cervix, whether the induration is malignant or benign. Now in the course of pregnancy Chantreuil alleges that the benign induration softens towards the end of pregnancy, which the malignant does not; while Scanzoni takes the opposite view, and states that in his experience during pregnancy cancer softens, while hypertrophy of the cervix remains hard; and is supported by Madame Boivin that cancer softens, and by Dr. George Raper that hypertrophy remains hard. Will some of you gentlemen give your experience on this question?

But to come to the more immediate subject of my paper, "The Treatment of Labour complicated with Cancer of the Cervix," I will, in the first place, divide all cases into two divisions: (1) Those in which the cervix only is involved; and (2) where the surrounding tissues are implicated; that practically amounts to (1) cases in which it is possible to remove the whole disease, and (2) those in which it is not. Now, as the second class contains the most serious and unsatisfactory cases, I will take them first; and we have as recognised methods of treatment (1) leaving uterus alone; (2) dilatation by hydrostatic bags; (3) incisions made into the cervix; (4) partial removal by galvanic ecraseur, thermo-cautery, scissors, &c., and, in conjunction with the other methods, forceps or version; and (5) the Cæsarian section, or Porro's operation. Now, in cases

weeks, and another in which she died undelivered; but Herman, left alone, I know of one case in which the patient lived a few to whom I am indebted for much valuable information on this subject, and whose paper in Vol. XX. of the Obstetrical Society's Transactions is the best monograph on the subject with which I am acquainted, has collected a table of 180 cases, including all reliable cases in the tables of Cohnstein, Puchelt, and Chantreuil, and others not previously published; and of these he states that in the cases left to nature hindrance to delivery was overcome in seven cases by spontaneous tearing of the cervix. In three others, while labour was going on slowly, the obstruction seemed suddenly to give way, and delivery quickly followed, but fissures in the os were not looked for, or not noticed. In nine cases the os is said to have dilated, no mention being made of any fissures, and in one of them it is expressly stated that no laceration could be detected. In some of these women the disease only appears in part of the cervix, and the dilatation took place at the expense of the healthy segment. In the cases in which the disease formed a circumscribed tumour, the healthy part of the cervix dilated, and the diseased mass was pushed aside and compressed between the head and the pelvic wall. In one, the disease formed a large cauliflower excrescence, which filled the whole vagina and obstructed the passage of fæces and urine. As the head came down, this was forced out of the vulva; and after the child had passed it again returned into the vagina. In two cases the disease, or a large part of it, was altogether detached. In Meig's case the entire mass, forming two-fifths of the circumference of the os, came away in the hand of the medical attendant. In Lewis' case a very large piece of the diseased mass was torn away, and forced before the head of the child, a chasm being left so large that the hand might readily have passed into the uterus. Of the remaining cases in which labour was terminated by natural efforts, no records of the mode in which it was accomplished are given.

These cases clearly shew that nature's method of getting over the difficulty is by fissuring of the cervix, or by total forcing away, so to speak, the diseased mass; and the tables further shew that this fissuring does not take place quickly, but after prolonged resistance—in 2 cases after twelve hours' labour, in 1 case after forty hours, in 4 after two days, and in 1 after four days' labour. Of the 12 cases, the termination of one is not recorded, 8 recovered, and 3 died, so that this fissuring may be regarded as a favourable circumstance, and affords a clue to treatment. In the cases of forceps and version, those treated by the forceps, as might be expected, did best. In 14 cases treated by incisions, 11 recovered and 3 died, so that it would seem where fissures take place, or incisions are made, the result is perhaps the best on the whole.



In twelve cases craniotomy was performed, of which three recovered and nine died; and of twelve cases of Cæsarian section, four recovered and eight died. These were probably all very bad cases. In eleven cases rupture of the uterus occurred with a fatal termination in all, and there are thirteen cases in which the patients died undelivered.

I have now briefly given you the statistics of the mortality of the disease, in which no attempt was or could be made to remove the cancer, and refer you for more detailed information to Dr. Herman's paper, which gives an excellent detailed account of the cases; and the inference I deduce from him is that where it is impossible to remove the whole disease, the best results are to be obtained by numerous incisions round the os; but it is difficult to make a prognosis from the extent of the cancer, as some cases where the disease extended right round the os, dilated; whereas others, in which only a small portion was affected, failed to do so; but, speaking generally, the softness of the cancer is more favourable even when extensive than a hard mass when limited.

Now, if we consider the other class of cases—those where it is possible to remove the cancer, the results were more favourable, both immediately and remotely; because, by removal of the disease, not only is there less danger at the time, but also there is a much better chance of considerably prolonging life. Of the cases in Herman's table ten cases occurred in which the disease was removed during pregnancy, in one of which abortion immediately followed; in four later on, and in five labour was completed at the term. Those operated on before labour do not so much affect the immediate subject of this paper.

In three cases the diseased part was removed at the time of labour—in one with the galvanic cautery, and in two with scissors. In the latter two cases the operation greatly facilitated labour; in the cautery case no good result followed, and incisions had to be resorted to with a fatal termination.

If, then, the cancer be limited to the cervix, and is of such limited extent that it can be removed by spoon, cautery, or scissors, its removal seems to be the best practice; but if the disease, while limited to the cervix, is so extensive as to prohibit its removal per vaginam, and so hard as to preclude the possibility of dilatation, the case is one which, to my mind, is too tempting to avoid total removal of the whole uterus and its contents by abdominal section, whether the child is living or not—bearing in mind what has been accomplished in abdominal surgery, and the great advantage of free and complete removal of the disease; and I now venture to lay before the Society the notes of a case in which I acted on this view since our last meeting.

At 9 p.m. on Wednesday, the 12th December, my friend, Dr. Norrie, asked me to see, with him, a woman, æt. 33, the mother of four



children, who had been in labour at term since the previous Sunday, under the care of a midwife ; and as no advance had been made in the labour, and as the woman was getting exhausted, his advice had been sought. Finding that she had cancer of the cervix, he kindly invited me to see the case. On arrival at the house I found the patient in a very great state of exhaustion, she having had severe hæmorrhage for some days, and having strong labour pains, which she informed me she had endured for four days. The os would admit the tip of the finger, and through the membranes could be felt strongly protruding with each pain. The whole cervix was a hard, solid mass of cancer, which seemed to encroach on the body of the uterus, but the vagina was quite healthy. On consultation with Dr. Norrie and Dr. Benington (who was staying with me at the time), we, after anxious deliberation, decided that it would be useless to attempt removal of the mass, and that to avoid rupture of the uterus the fœtus must be speedily removed ; and as the disease was limited to the uterus, total extirpation was preferable to Cæsarian section or Porro's operation. We, having fully explained the great risks of the operation to the patient and her husband, she readily decided to have it done, and she was at once removed to the Infirmary, where I had the advantage of the advice and assistance of my colleagues, who all agreed in the opinion we had arrived at. A careful and prolonged examination was made for evidence of life in the fœtus, but no such indication was found. The vagina was thoroughly flushed with a solution of perchloride of mercury, and a silver catheter passed into the bladder. Strict anti-septic precautions, with the use of spray, were used, and chloroform was administered. The abdomen was speedily opened by an incision from a little above the pubis to four inches above the umbilicus, and the uterus drawn out. A further examination failed to shew any life in the fœtus ; so instead of using a temporary elastic ligature, and at once removing the fœtus, I decided to husband all blood, and to save time, by at once securing each broad ligament completely by three silk ligatures. I then made a transverse incision a little above the junction of the bladder, and easily peeled it off, opening the vaginal roof ; in doing so the left ureter was exposed, recognised, and left unharmed ; the right was not noticed. A similar method was performed posteriorly, and the rectum carefully separated, all bleeding points being secured with Péan's forceps. The uterus was then cut away, but very little oozing was found to occur ; the forceps were then removed one by one, each vessel being securely tied with silk. The toilet of the peritoneum was carefully attended to, and the ligatures on the broad ligaments cut short. As the opening into the vagina was so very small it was left for drainage, and a glass tube passed down to it from the abdominal wound, which was then closed and dressed as in ovariectomy. The

patient rallied well and had a good pulse. In an hour's time she looked much better than before the operation; she had a fair night, with some sickness. Next day she was dressed at 10 a.m., and the vagina carefully flushed with a perchloride solution; temp. 99·5, pulse 110; aspect excellent, not much pain, and but little sickness. At two, vagina again irrigated, pulse and temperature the same, sickness better. At four she was not so well, and at ten p.m. there was a decided change for the worse. She rallied a little during the night, but died next day of exhaustion. At the *post-mortem* the abdomen was perfectly sweet, no pus, a very little serum, two small clots, and on a most searching examination not a particle of the cancer could be found.

I shall now be glad to hear your criticisms on this case, which is the only case I know of where the whole uterus has been removed during labour. My friend, Sir Spencer Wells, has successfully removed the pregnant uterus at six months for cancer, but he writes to me that he knows of no case where it has been done during labour at term.

I shall be extremely grateful for suggestions of improvements in the operation, more especially as to the propriety of closing the vaginal opening; as I have no doubt that, if not in my hands, it will in those of some other surgeon be soon successfully repeated, in a case not exhausted by severe hæmorrhage, with four days' labour.

Dr. GIBSON complimented the President on the courage and judgment which he had brought to bear upon this extraordinary case. The desperate condition of the patient seemed not only to justify the operator, but to commend him in the operative proceedings which he had adopted.

Mr. RUTHERFORD MORISON: I cordially endorse all that Dr. Gibson has so well said, and think further that Dr. Murphy, with his skill and success in abdominal surgery and the hospital resources at his disposal, would have been doing a criminal act to have refused his patient a chance of permanent cure.

I can call to mind five cases of cancer of the cervix complicating labour which I attended. In every case I was much struck with the way in which the diseased cervix dilated and softened, in marked contrast to Dr. Murphy's case. All these patients recovered from the confinements, but died soon after, a miserable death, from rapid increase in the disease. One cannot help feeling that even a slight prospect of success is to be seized in these dreadful cases, and Dr. Murphy's skill and courage deserved a better result.





# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

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SESSION 1888-89.

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## FEBRUARY MEETING.

THE FIFTH MONTHLY MEETING of this Society was held in the Library of the Royal Infirmary, Newcastle-on-Tyne, on the evening of Thursday, February 14th—Dr. Murphy (President) in the chair.

### NEW MEMBERS ELECTED.

Waterson, W. T., L.R.C.P., Embleton.  
Clifford, Thomas, M.B., Dipton.

### NEW MEMBERS PROPOSED.

Baigent, William, M.B., Royal Infirmary, Newcastle.  
Morton, Thomas, M.B., Durham.

### DEATH OF DR. WATSON.

The PRESIDENT feelingly referred to the loss the Society had sustained through the death of Dr. Watson of Sunderland.

On the motion of the PRESIDENT, seconded by Prof. PHILIPSON, it was resolved that a letter be addressed to Mrs. Watson, expressing the deep regret of the Society and their sympathy with Mrs. Watson in her bereavement.

### EXCISION OF ELBOW.

Mr. WILLIAMSON: Mr. President,—This patient (a woman 38 years of age) fell about a year ago and fractured the left humerus into the elbow joint. It was put up on an angular splint; but when the splint was removed the joint was stiff. An attempt was made to extend it under chloroform, but without success. A second attempt was made a month afterwards, also without success, and with the result of paralysing the ulnar nerve. When she was admitted into the Infirmary the forearm could only be moved at the elbow for about half-an-inch, but pronation and supination were normal. She complained of great pain in the elbow. A month ago I excised the joint by the usual operation—suturing

the wound with catgut, and leaving in some fine threads of catgut for a drain. A dry wool dressing was applied with firm pressure, and when this was removed a fortnight later, the wound was perfectly healed.

I have here the ends of the bones, which shew in an interesting way why the elbow was locked. The humerus has obviously been fractured through the middle of its articular surface, the inner fragment being displaced forwards, and uniting in such a way as to touch the coroid process of the ulna, and so prevent flexion. Extension is checked by a curious outgrowth from the olecranon, and this had probably been pressed against the ulnar nerve when the second attempt at extension was made, causing paralysis of the nerve.

#### EXCISION OF HIP.

MR. WILLIAMEON : Mr. President,—This little girl, who is eight years of age, was brought to me as an out-patient about a year ago, with incipient disease of the left hip. She comes of a bad stock. Her mother is an unhealthy woman with ulcerated legs, and a younger child has tubercular disease of the knee. The hip became progressively worse, though the patient was carefully treated both outside and in the hospital. I therefore determined to excise the hip, and this was done a month ago. The operation was performed by the anterior incision, which begins a little below the anterior superior spine of the ilium, and passes down in the interval between the sartorius and the tensor vaginæ femoris. There is very little bleeding, as no muscles or structures of importance are cut. I passed my finger along the neck of the femur into the joint and decided to remove the head and neck of bone. This was done by cutting through the neck at its junction with the shaft, with a pair of bone forceps, and not with a saw as usually recommended. The detached piece was then removed by the fingers (though with a little difficulty) as I did not wish to crush the specimen with the forceps. The acetabulum and surrounding parts were well scraped with a sharp spoon, a drainage tube was introduced, and the wound sutured and dressed. Four days later the tube was removed, and a week later only the small orifice for the tube was left unhealed, but this closed soon after. The child's temperature, which had been somewhat high, fell to normal after the operation, and has remained so. With the posterior incision the dressing of the wound causes a good deal of pain and trouble ; but with this the dressing is lifted off and replaced without disturbing the patient. I shall omit the drainage tube in the next operation of the kind, as (with strict antiseptic precautions) I think that strands of catgut will do instead, and there will then be no necessity to remove the dressing until the wound is healed.

Dr. HUME remarked that in this case, as Mr. Williamson had stated, there had been no formation of pus in the joint or its neighbourhood previous to operation, and therefore the chances of primary union were good ; but that where matter existed at the time of the operation the anterior incision would be badly placed for drainage if, as was likely to happen in such cases, primary union failed.

#### HODGKIN'S DISEASE.

Dr. LIMONT : This man, J.R., sent to me by Dr. Macnaughten, came under my care on January 9th, complaining of difficulty in breathing and swallowing of about three months' duration. He is aged 29, and is a plater.

Three months before admission he began to suffer from difficulty of breathing, especially when lying down ; and also from a cough and spit. A few days later he noticed he had difficulty in swallowing, and very shortly afterwards he found lumps in his neck.

The only previous illnesses were three attacks of "bronchitis," the last one year before admission.

He cannot lie down in bed : he manages to sleep leaning forwards and (almost always) over to the left side, with his head leaning on a special table. His face is slightly cyanosed. His temperature varies between 98 deg. and 100 deg. F., pulse 106, small and soft. He can swallow solids only in very small quantities. He feels larger masses as if stopped in the neck, and they are regurgitated unchanged within a few minutes. If he sits in a chair œdema appears about the feet. There is slight œdema beneath the eyelids. There is also considerable œdema over the sternum. The mucous membranes are not markedly pale. He has had one pretty severe attack of epistaxis.

You will notice distended the epigastric veins on both sides, almost all the intercostal veins of the left side, and some veins coming from the left arm

In the left supra clavicular region and in the left axilla are large masses of glands ; the corresponding ones on the right side are less enlarged. In the infra clavicular regions there are also enlarged glands, but they are decidedly less than they were a month ago. The inguinal and femoral glands are also enlarged. Where the enlargement is great the glands are matted together, but where they are smaller they are freely moveable, firm, and painless.

You will notice, in the second right interspace, a protrusion the size of a marble, which has appeared within the last few days. There is very little expansion of the chest. Vocal fremitus is almost completely absent all over the front. There is absolute dulness, with great resistance over the area indicated—roughly speaking, extending to the axillary line on each side. A month ago it did not extend beyond the nipple line on either side. Breath sounds and vocal resonance are very feeble over this area.



Examination of the abdomen is difficult on account of tenderness. There is an indistinct hard body on the right hypochondrium. The splenic dulness is very slightly increased. The white blood corpuscles are, I think, very slightly increased.

Interesting points in the case are—

1. Rapidity with which the symptoms developed. Within three months there arose difficulty in breathing and swallowing, and inability to lie down in bed.
2. The rapidity of increase of the intra-thoracic growth.
3. Decrease in size of infra-clavicular growths.
4. The projection exactly at the site where thoracic aneurisms so often project.

Professor PHILIPSON stated that the case was a very typical one of lymphadenoma or Hodgkin's disease, in which the general lymphatic system, both internal and external, was affected. He regarded the enlargement of the lymphatic glands as a hyperplasia, with subsequent fibroid induration. He thought that there was no enlargement of the retro-peritoneal glands, for, although there was a small amount of colouration adjacent to the axillæ, there was no distinct bronzing of the skin. He advocated the treatment by arsenic.

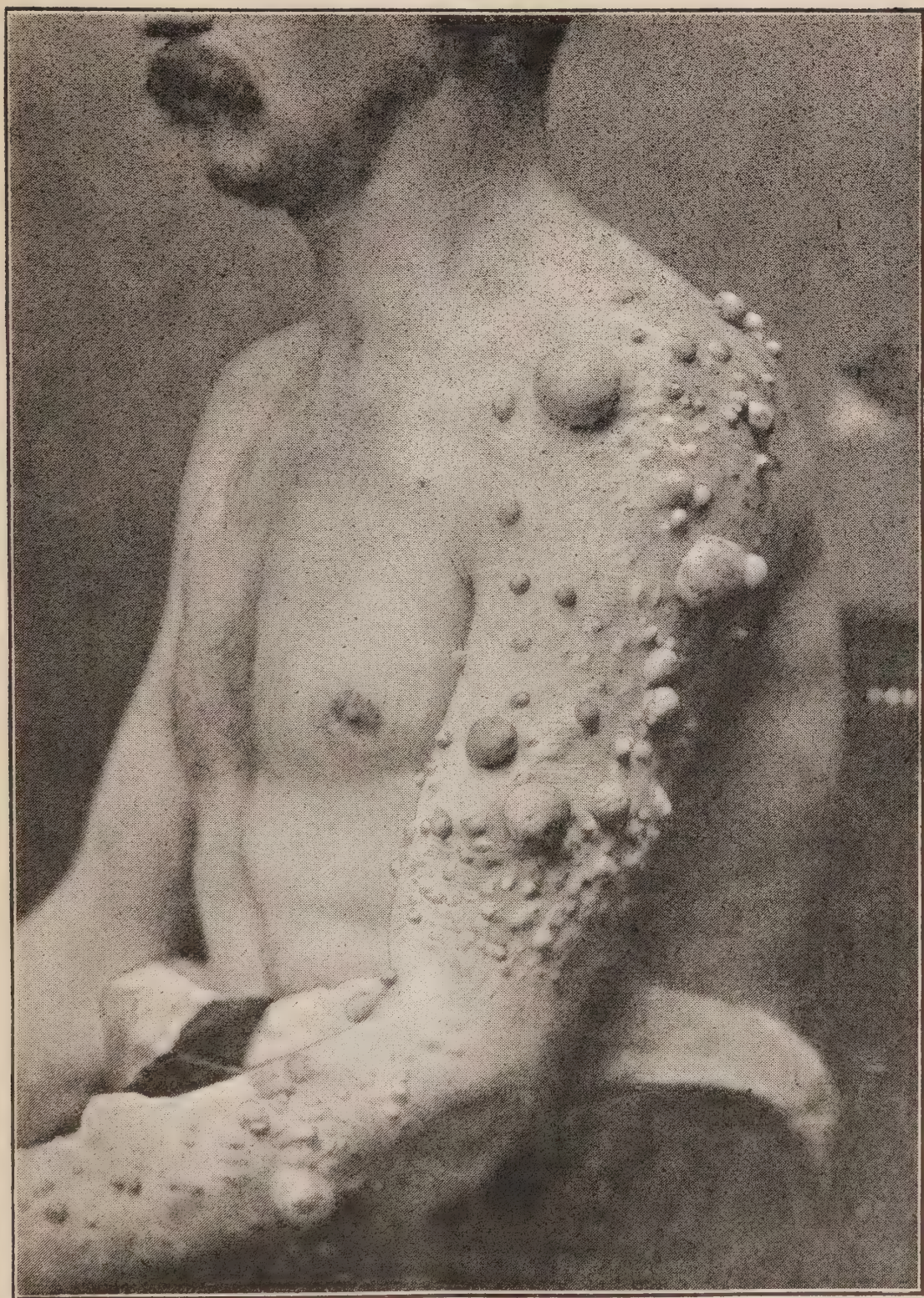
Dr. REDMOND inquired with regard to the condition of the kidneys.

Dr. LIMONT, in reply, said that the urine was normal. Treatment had as yet been directed only to troublesome dyspeptic and bronchitic symptoms. He had been wishful to try the effect of chloride of calcium; arsenic was, of course, the drug that had the reputation of producing the best results in such cases.

#### CASE OF MOLLUSCUM FIBROSUM.

Dr. HUME shewed a case of molluscum fibrosum, affecting chiefly the left arm. The patient is 32 years of age, and the complaint is said not to have shewn itself till about ten years ago. The accompanying illustration (from a photograph) shews the appearance and situation of the outgrowths. These outgrowths, it was pointed out, originate in the subcutaneous areolar tissue, and, therefore, the disease has no affinity to the so-called molluscum contagiosum, which is a disease of the sebaceous glands, and of which cases had been exhibited to the Society in a former session by Dr. Gowans. In the case shewn, the fibromatous outgrowths, which had been at first confined to the left arm, were now appearing on the face and other parts of the body. The tendency of some of them as they grow to become pedunculated was pointed out; and also the fact that some of them seem to be situated partly in the subcutaneous areolar tissue, and partly in the substance of the skin proper. The patient complains of pain in the larger lumps on the











arm, probably caused by the friction of the clothes; and, therefore, it was proposed to remove as many as possible of these larger masses with the knife. The smaller growths, especially those on the face, it was thought could be dealt with successfully with electrolysis, and two—one on the face, the other on the arm—which had been experimentally treated in this way, had shrivelled up, leaving a very slight scar.

The PRESIDENT said the Society were indebted to Dr. Hume for this valuable demonstration. He suggested that the case be photographed and reproduced in the Transactions.

Mr. WILLIAMSON: Mr. President,—This plate of molluscum fibrosum (one of the Sydenham Society's) shews a case in which the disease was developed over the whole of the body. The patient was in the London Hospital for some weeks whilst I was Mr. Hutchinson's house surgeon, so that I had a good opportunity of observing him. I removed several of the smaller tumours, and made microscopical sections of them, which shewed very clearly their connected tissue structure. It was out of the question to remove them all, as there were so many; and, unlike those in Dr. Hume's patient, they were not specially sensitive.

Professor PHILIPSON said that cases of molluscum fibrosum were rare. The tumours consisted of a protrusion of the corium, by an accumulation of gelatinous, connective tissue, in the deeper meshes. The new growth increased in size and developed into a mass of fibrous texture. He referred to the statement of Hebra, that the patients affected with this form of molluscum exhibited an ill-developed condition of mind. As the causes of these tumours were unknown, he was unable to suggest any measure to combat their predisposition. He agreed, however, with Dr. Hume, that the rational surgical treatment consisted in their removal.

Dr. MANTLE said he well remembered Mr. Hutchinson's case already mentioned by Mr. Williamson, for the man was taken into hospital every year for clinical instruction. Here were two great points of difference, however, in the two cases, he noticed present in Dr. Hume's case but absent in Mr. Hutchinson's, they were the very marked redness in the tumours and their excessive sensitiveness on being touched. In Mr. Hutchinson's case there was no redness, and the growths could be pulled about in any way without causing pain.

Dr. J. DRUMMOND: I should like, sir, with your permission, to hand round a photograph of a case of molluscum fibrosum I had under my care six or eight years ago. It differed from Dr. Hume's case in this respect, that the skin over the tumours appeared sound and healthy. There were also several very large masses, especially on the legs; indeed one leg was so large that it had more

the appearance of elephantiasis—this being no doubt due to the several tumours coalescing, and perhaps causing irritation, and increasing the blood supply to the limb.

Dr. HUME, in reply, said that the tenderness was the chief plea for treatment. The tenderness present was unusual. As regards the mental condition of the patient, he should say it was rather above than below the average.

#### EXCISION OF NECROSED PATELLA.—USEFUL JOINT.

Mr. PAGE: This man, sir, who is 29 years of age, was admitted into the Royal Infirmary under my care some three months ago with a large accumulation of matter round about the right knee, and extending under the skin of the thigh and leg. The pus was let out and the abscess cavity rapidly contracted. A few years ago patient had some diseased bone removed from the outer side of the right femur, and it was thought at first his condition was due to some recurrence of disease at the old situation, but this was found not to be correct. Through one of the openings made to let out pus round about the knee, the probe struck the patella, which was found to be necrosed. It was thought probable that the joint was diseased, and an exploratory operation was performed. A straight incision was made through the skin across the joint, as if for excision. The patella was found extensively necrosed and it was removed entirely. No other disease was found. The wound was drained and closed. Repair went on rapidly and ten weeks after patient was discharged with a Gooch splint applied to the back of his joint. For the last three weeks he has been at the Whitley Convalescent Home, having discarded all support. He walks easily, and with but very little (if any) lameness. I believe, and Sir Joseph Lister says he believes, that Mr. T. A. Dodd of this city was the first surgeon who reported a case of removal of the patella for necrosis—the patient retaining the use of the joint—and it was in consequence of the success which attended Mr. Dodd's original operation that I was induced to repeat the experiment, with the result you see.

#### REMOVAL OF LOOSE CARTILAGE FROM KNEE.

Mr. PAGE: This young man was admitted into the Royal Infirmary a few weeks ago with his left knee joint very much distended with synovial fluid, and this large loose cartilage in the joint. Under antiseptic precautions a free incision was made through the synovial membrane, and the cartilage extracted. The wound healed by first intention without any constitutional symptoms arising, and the patient is now quite fit to resume duty.

## SUTURE OF PATELLA.

Mr. PAGE: Some eighteen months ago this man fractured the patella of his right knee, and was treated in the ordinary way with a back-splint elevation and bandages. The result was some considerable separation of the two fragments into which the patella had been transversely broken. He had a limb sufficiently useful for walking, but found he was not steady enough on his legs to allow of his following his usual occupation as seaman on board a steamer. As the vessel rolled and pitched, he was too unsteady to do his duty. Being unwilling to change his occupation, he was admitted into the Royal Infirmary for the purpose of having his patella wired. This was a work of some considerable difficulty. The lower fragment was small, and after the wires had been passed through both fragments, and an attempt made to approximate them, the strain was so great that on two occasions the thick silver wire gave way, thus prolonging the operation and giving rise to considerable rough handling of the parts. Notwithstanding this, however, the wound healed readily, and without any constitutional disturbance. The patella was ligatured eight months ago, and patient since his discharge from hospital has acted as a fireman on board a steamer. He is annoyed by the silver wire, which is at one place through the skin, and I think it would now be safe to remove the wire altogether, and this I purpose to do at the first convenient opportunity.

Dr. HUME asked if the ends of the wire suture had been hammered down.

Mr. PAGE said the ends of the wire had been hammered down. It was the loop of the wire that caused discomfort. He intended to remove it.

## IMPERFORATE RECTUM.

Dr. HENRY S. BAUMGARTNER: When this child was two days old it was discovered that the anus was absent.

The doctor who attended the case made an attempt to establish an anus, which was unsuccessful; and from that time till the child was eight years old, it passed all its motions through a recto-vaginal fistula.

The child had very little control over the action of its bowels, and those motions often came away involuntarily.

In operating I made an incision in the position which the anus should occupy, and the parts carefully dissected till the gut was reached. The gut was then opened with a scalpel, but it was not sutured to the edges of the wound. The anus was kept open by passing an ordinary tallow candle every day for about ten days. In less than a month the child had acquired complete sphincter power, and the motions were well formed.



The fistula was not interfered with, and at the present time none of the fæces are passed through the vagina.

#### SALIVARY CALCULUS.

MR. WILLIAMSON: Mr. President,—This calculus, about three-quarters of an inch long and half-an-inch thick, was removed from a patient who was sent to me by my friend, Dr. Oliver. He had a sinus a little below the angle of the lower jaw, from which there had been a continuous discharge for two years. On probing it, a gritty and moveable substance was struck. The sinus was enlarged, and this calculus was removed, together with another smaller one. I am unable to exhibit the patient, as the sinus soon healed and he went home.

I think that the calculus had formed in the ordinary way in Wharton's duct, that it had set up ulceration of the duct and inflammation leading to an abscess, which burst under the lower jaw. The calculus then probably dropped into the abscess cavity and kept up the discharge through the fistula. Professor Bedson kindly analysed the smaller calculus for me, and he reports that it is composed of calcium phosphate.

DR. OLIVER: When the patient from whom Mr. Williamson has removed these calculi was sent to me from the country, he told me that he had been ill for two years, and that his medical attendant had chloroformed him twice and cut down upon the bone. I was inclined to regard the case as one of necrosis of the lower jaw, from the long continuance of the fistula, and sent him to Mr. Williamson, that he might be admitted into the Infirmary. The result of Mr. Williamson's operation is most satisfactory.

DR. JAS. DRUMMOND: It is so very unusual and interesting to hear of a salivary calculus being removed from the outer surface of the face, that I should like to hear from Mr. Williamson what caused the calculus to take this course. One frequently sees an abscess opening externally, where a spicula of bone from the jaw, a diseased tooth, or even tartar from the teeth, sets up irritation and abscess. It is just possible that such a body might form the nucleus to the calculus, and subsequently getting surrounded with a coating of lime from the passage of saliva through the fistulous opening. I have twice recently removed salivary calculi from underneath the tongue by simple incision.

DR. EMBLETON said in respect to the specimen handed round, he would only remark that a few years ago he had brought before this Society a case of salivary calculus. It was from an elderly lady. It was small, tubular, and had evidently formed by deposit on the walls of the duct of the sub-maxillary gland. It had worked

itself out by inflammation and suppuration. The specimen was sent to the Museum of the College of Medicine.\*

Dr. A. CAMPBELL mentioned the case of a lady patient of his who had passed one small salivary calculus, but who had several sublingual ones *in situ*, and used her mouth as a sort of "old curiosity shop" for the exhibition of the calculi to her intimate friends.

#### TUMOUR OF THE PANCREAS.

Dr. DUGGAN: The patient came under my care six months ago complaining of loss of appetite and loss of flesh. He had dyspeptic symptoms, with enlargement of the liver, and slight and constant pain in the right iliac region. He remained in much the same condition until a month before death, when he developed intense jaundice. His fæces were carefully examined daily for gall stones, but none were found; they were of a clay colour and contained no fatty matter. Urine contained bile, but otherwise healthy. On one occasion, about this time, I felt a hard tumour over the duodenum which led me to think we had a case of malignant disease of the duodenum to deal with. The patient got gradually worse, and was sent into Newcastle Infirmary under Dr. Drummond, where he died suddenly a few days after admission. I made a *post-mortem* and found the liver enlarged and the gall bladder distended with bile; the other organs were healthy, with the exception of the pancreas, the head of which was affected with the tumour shewn, and which Dr. Drummond has examined microscopically and found to be a round-celled sarcoma.

Dr. REDMOND said he had exhibited a similar specimen, and it was now in the museum of the College of Medicine.†

#### PROSTATECTOMY.

Dr. HUME showed an hypertrophied "middle lobe" removed in the operation of prostatectomy; and as the case had terminated fatally, the bladder was also shewn. The history of the case was as follows:—The patient was about 72 years of age. He had suffered from trouble with his bladder for many years, and for some months his difficulty and sufferings had become much greater. Micturition was constant and painful. When first seen by Dr. Hume there was a large quantity of residual urine, and the only instrument which could be got into the bladder was the large silver prostatic catheter. From the manner in which

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\* Of the above specimen a full account is given in our Proceedings of March 10th, 1870.

† A full record of this case, including family history, *post-mortem* notes, and microscopic report, is given in the Society's Transactions for February 12th and March 12th, 1874.

the catheter passed in it was evident that the obstruction was an enlarged middle lobe, tilting up and blocking the internal urethral orifice. The general enlargement of the prostate as ascertained per rectum was of moderate extent. Taking into consideration the urgency of the patient's sufferings—the condition of the bladder, in which there was severe cystitis, and the impossibility of the patient himself carrying out regular catheterism, the operation of prostatectomy was advised. This the patient agreed to, all the risks of the proceeding having been frankly put before him. The operation was carried out by the supra-pubic method, as advocated by Mr. McGill, of Leeds. When the bladder was opened, and the finger passed into its cavity, the urethral orifice was found to be directed upwards, and to be placed on the summit of a mound which also overhung it posteriorly. The overhanging lip must therefore have been almost completely closed on the orifice by the pressure of the commencing stream of urine. The further steps of the operation consisted in dividing the mucous membrane over this mound by means of curved scissors, and then enucleating the whole of the projecting part with the finger nail. The part removed was of the size of a walnut. A tube was placed in the bladder through the wound and a soft catheter in the urethra.

The patient appeared at first to go on well, but gradually some distension and tenderness of the lower part of the abdomen came on, and he sank on the fourth day.

With regard to the advisability of this operation, Dr. Hume remarked that when catheterism can be regularly carried out in cases of failure to empty the bladder due to enlarged prostate, nothing more is required ; but that there is a residue of cases in which catheterism is unusually difficult and painful, and in which further help is called for. For such cases the choice in the way of operation at present lies between perinæal opening of the bladder with incision of the prostatic floor and drainage, on the one hand ; and on the other, the supra-pubic operation, with its increased facility for the removal of projecting portions, but more imperfect drainage and probably greater risk to life.

Mr. PAGE: I regret very much, sir, that this case of Dr. Hume's, the first of the kind in the institution, should not have turned out a success. The result of his case will no doubt exert an influence amongst us unfavourable to the operation. Dr. Hume has alluded to an alternative treatment and mentioned the name of Professor Annandale in connection with the method. I know that Professor Annandale is well satisfied with drainage. He inserts a soft rubber tube into the bladder, through a perineal wound, to the end of which a tap is attached, leading from which is a long soft rubber tube. The patient wears this continually, and can at any time relieve his bladder by turning the tap. The bladder can



also be from time to time washed out through the tube. Considering that the patients who suffer inconvenience from enlargement of the prostate are old men, and often feeble, it would seem that this simple plan of drainage such as I have described would recommend itself rather than so severe an operation as cutting into the bladder and removing a part of the prostate. I have tried Mr. Annandale's plan on two occasions, but am not altogether satisfied with it. It is free from danger, and I think I would prefer to try it before removing a portion of the gland.

HEART WITH IMPERFECT VENTRICULAR SEPTUM AND DEFORMED  
PULMONARY ARTERY.

Dr. OLIVER: This very complete specimen of imperfectly developed heart, in which the septum between the ventricles is in great part wanting, and the orifice of the pulmonary artery constricted, and its valve composed of two instead of three segments, was removed from the body of a young man, a miner, aged 25. He was admitted into the Infirmary in a state of cyanosis and extreme collapse; and a few days afterwards, having somewhat recovered, we were able to detect, in addition to pleurisy, with effusion, a loud blowing systolic murmur immediately underneath the aortic orifice, but unlike both aortic and pulmonic systolic murmurs, since it was not conveyed in any special direction. Owing to the well-marked cyanosis, and the at first apparently unexplainable physical signs, we diagnosed congenital disease of heart, but were unable to fix upon that part of the heart which was the seat of the deformity. The patient died from sheer exhaustion; and at the *post-mortem* we found this interesting specimen, which weighs 10 ounces. The wall of the right ventricle is considerably hypertrophied, being almost as thick as the left. The segments of the tricuspid valve are perforated at their tips. There is marked narrowing of the conus arteriosus, and constriction of the pulmonary artery, which only admits the tip of the little finger. The semilunar valve of this vessel contains two instead of three segments. At the undefined space at the base of the septum is a large perforation, which admits two fingers, and has thus allowed of the freest communication between the two ventricles. The ductus arteriosus is dilated at either extremity to the size of a crow quill, but is only patent at either end for a short distance. There were a few old tubercular nodules in the apices of the lungs. Owing to the existence of this large opening in the interventricular septum, the contents of the right ventricle would be sent in large quantity into the aorta, where it mixed with the arterial blood just come from the lung, and hence the cyanosis is possibly explained by the admixture of the two kinds of blood—arterial and venous. Another point of interest in the case is the association of congenital heart disease, with tubercular deposit in

the lung. I am convinced that where a congenital heart affection of not too pronounced a type exists, patient may suffer no great inconvenience—the two sides of the heart being pretty equal. It only requires in such that some intercurrent pulmonary affection or some exhausting illness should arise, destroying the nutrition of the heart; and what was up till then a latent cardiac lesion, becomes a real heart disease.

#### RUPTURE OF THE HEART.

Dr. LIMONT: The patient from whom this heart was removed was a man aged 62 who had been employed in lead works nearly all his life. He was admitted on the 21st of November (sent to me by Mr. J. R. Baumgartner), on account of senile-gangrene of his right great toe. In addition to great pain in the toe, he complained of constant pain over the præcordium. The heart sounds were inaudible; the pulse weak, and sometimes irregular. The radials were only slightly atheromatous. Patient was excessively stout. The line of demarcation appeared on the toe in a day or two. At three in the morning, ten days after admission into hospital, he suddenly rose up in bed and fell back dead.

*Post-mortem Report:* The pericardium distended, containing about a pound of dark blood clot, and a few ounces of blood-stained fluid.

In the front of the left ventricle, immediately to the left of the septum, and  $2\frac{1}{2}$  inches from the apex, was a longitudinal tear three-quarters of an inch in length; the edges of the tear were ragged, and the wall immediately surrounding soft. The left coronary artery at the upper part of the left ventricle stands out as a thick, firm cord. About an inch from its origin, this artery is practically occluded, partly by the calcareous atheromatous thickening, partly by recent thrombus. This occlusion is about an inch above the rupture, which lies in the bifurcation of its first two branches. The structure for about a quarter of an inch surrounding the line of tear is exceedingly soft. Left ventricle dilated, walls of average thickness, but the muscular substance pale, mottled yellow, and very soft. Aortic valves competent; aorta atheromatous; surface of heart covered with fat.

The blood vessels generally are free from marked thickening or rigidity, except the right posterior tibial, which is decidedly atheromatous and thrombosed.

On examination of the section under the microscope, you will see that the striation of the muscular fibres has almost entirely disappeared, and that in the fibres are numerous dark and shining granules, which are darkened by osmic acid, shewing their fatty nature.

It is interesting to note in this case that there was marked atheroma in two arteries only—the left coronary and the posterior



tibial. Thrombus formed in both, and gave rise in the one case to rupture of the heart, and in the other to gangrene of the toe.

Dr. OLIVER: The specimen which Dr. Limont has exhibited raises a very important question, viz., what was the cause of the extreme pain which patient had from time to time experienced over the præcordium? Were the attacks those of angina? Thrombosis of the coronary artery would be, I presume, a painful condition, for the distended vessel would necessarily press upon the cardiac ganglia, most of which are superficial, and many of them sensory. Again, if the pains were anginoid, in the fatty degenerated condition of the cardiac muscle fibre may be found the explanation. Disease of the coronary arteries and fatty degeneration of the heart run so frequently together, that it is difficult to assign to each its proper share in causing pain; besides, the two things are causally related to each other. In most cases of angina I have met with there has been fatty degeneration of fibre, and this, as Dr. Limont has shewn, has been the cause of rupture of this heart. The case is very similar to one exhibited by Dr. James Drummond to the Society nearly two years ago, where there was a large rent in the wall of the heart and extreme degeneration of the cardiac fibre.

#### ABSCESS OF OVARY WITH PYOSALPINX.

Dr. LIMONT: I have had the patient from whom this specimen was removed under my care from time to time during the last three-and-a-half-years. Her case illustrates very well the bad effects which may result from a spread of a gonorrhœal vaginitis upwards to the peritoneum.

At the age of 17 she had suffered from an attack which was characterized by heat and redness of vulva; pain in the vagina; a vaginal discharge with a bad smell; micturition frequent, painful, and accompanied by straining. Immediately after this attack she suffered from abdominal pain, swelling, and vomiting—this confined her to her bed for a month, and ever afterwards she has had pain in the left ovarian region. She has been married twice, but has never been pregnant. When 28 she had another attack of inflammation in left ovarian region. During this attack there was much pain during defæcation and micturition, and also when the patient attempted to sit. After this attack there was dyspareunia and premenstrual pain.

At this time I first saw the patient. The bladder and uterus were normal—the latter being freely moveable, but there was marked tenderness in the ovarian regions. After treatment I could by bimanual examination feel a tender swelling in the left fornix and this was regarded as tube and ovary matted together.



The ordinary treatment of such cases was employed ; patient's symptoms were much relieved, and she went home. From time to time since then I have seen her, generally on account of pelvic pain ; a tender mass somewhat larger than a walnut was always to be felt in the left fornix, and about a year ago there was a similar mass in the right fornix.

About the beginning of September, 1888, patient (after doing a day's washing) was suddenly seized with vomiting and severe pain ; there was also uterine hæmorrhage. She was attended by Mr. May.

Four days after the commencement of the attack, when I saw her, she was in a collapsed condition, with pinched features, considerable fever, very quick and small pulse ; there was vomiting and distended abdomen. Tenderness prevented any examination of the pelvis *per vaginam*. I regarded the peritonitis as probably due to escape of pus, but the patient was in too weak a condition to permit of her being removed to the Infirmary for operation. She recovered from this attack, and some weeks later had a second similar one in which she very nearly died.

When admitted into the Infirmary she was in an extremely weak condition, but her temperature during three weeks remained between 98 and 99—on one occasion only reaching 100 deg. F.—and there were no shiverings or perspiration. A mass could be felt on the left side of the pelvis.

On November 9th, an examination under chloroform enabled one to make out clearly a cystic mass lying deeply in the left ovarian region and pouch of Douglas ; this was punctured, and some thick pus drawn off.

On November 13th Mr. Page operated. There were extensive recent adhesions to the upper part of the cyst, but these were easily broken down by the fingers. Below the cyst, however, there were very firm adhesions—one, apparently the outer end of tube adherent to the pelvic wall, had to be divided.

The mass was then lifted up, its pedicle transfixed, divided, and the operation completed. On the right side there was some matting, but the tube and ovary were free, and were not interfered with.

On examination, the collection of pus was found to lie in this, which is the ovary considerably enlarged ; the outer part of the tube is occluded ; a communication between the abscess cavity and the tube is indicated by this rod. The tube is much thickened, and at the time of operation contained pus.

The patient made a fairly good recovery—somewhat retarded by cellulitis in the anterior part of the pelvis.

The case is an interesting one for many reasons. It reminds one of the not infrequent spread of gonorrhœa to the tube, ovary, and peritoneum, and suggests greater care in the treatment of vaginitis as regards rest and less violent syringing.





W.B.

S. PENNAN. PHOTO-LITHO.

3. 8T. THOMAS ST. NEWCASTLE

DISTENDED RIGHT TUBE.



It also raises the question of operative interference—firstly, in those cases where you have ovary and tube matted together with varying symptoms lasting for years; secondly, in those cases where symptoms of acute inflammation are suddenly added.

BILATERAL “PYOSALPINX WITH OVARIAN TUMOUR.”

Dr. LIMONT: The patient from whom these specimens are removed is a married woman, aged 34. I first saw her on December 12th in consultation with Dr. Thompson, of Felling. She was then complaining of a painful swelling in the right iliac region of about two years' duration.

The patient dated the commencement of trouble seven years back, the second day after the birth of her second child. She then had “inflammation of her right side, which was hard and painful.” The hardness soon disappeared, but the pain remained, and for a year she could rest only by lying face downwards. The pain had continued up to the time she was seen. The swelling was first noticed two years before, and had never disappeared, though she stated that it had varied greatly in size from time to time. She also said that at the times it got less there was diarrhœa. She had become very much thinner, and had been able to do her domestic duties with great difficulty. During the last three years menstruation had been excessive; the periods lasted about ten days, and there was an interval of only fourteen days between them. A prominence was present in the right iliac region, and on palpation a body was felt which, in size, shape, and consistency much resembled a kidney. On inserting a hypodermic needle thick pus was drawn off, which under the microscope was found to contain fatty pus cells and compound granular corpuscles.

Four days later chloroform was given, and the pelvis carefully examined. The swelling before noted was much changed; it was smaller, lax, and fluctuating, and appeared to be connected with the uterus by a long pedicle. To the left and behind was felt what appeared to be enlarged ovary and tube. The uterus was enlarged, lying forwards, and came slightly above the pubis.

The patient was admitted into the Royal Infirmary under my care. Mr. Page and myself made several careful examinations. The opinion arrived at was that it was probably an affection of the tube, and it was agreed that Mr. Page should do an abdominal section.

These specimens are the result of the operations. The large one, shewn in the accompanying plate, and measuring  $5\frac{1}{2}$  inches long, and 2 inches at its widest part, lay in the right iliac fossa. It had numerous adhesions to omentum and bowel, being free only on the anterior surface. Between the distended part and the uterus there was an undistended part about two inches in length.

The outer part of this undistended part felt solid, while the part next the uterus felt soft and empty.

This second specimen is the distended left tube. When removed, one of the two coils was the size of a small hen's egg, but most of the pus has escaped. It lay deep in the pelvis, and was with some difficulty removed, owing to adhesions. In this, as in the other side, there is a part of the tube which feels solid, but does not extend up to the uterus. The peculiar solid feeling, taken along with the very bad family history of phthisis (the mother, a brother, and a sister having died of it, and another sister being "in a consumption") made one suspicious that there was a tubercular deposit in the tubes. On microscopic examination, however, no trace of tubercle could be found. The section handed round shews the walls of the tube to be greatly thickened, and the lumen, though greatly narrowed, not occluded.

On examining the pelvis, after removal of the tubes, this cystic ovary, the size of a Tangerine orange, was found on the right side; and this one, somewhat smaller, on the left.

The patient made a rapid and uninterrupted recovery.

I would draw attention to the fact that neither in this case nor in the previous one was there, during the stay of patient in hospital previous to the operation, any high temperature, rigors, or sweatings.

Dr. OLIVER: This is a valuable specimen. Dr. Limont has done good service by reminding members of this Society of the very frequent association that exists between diseased conditions of the ovary and gonorrhœa. Gonorrhœa—particularly in the female—is not the simple morbid process we might at first sight feel inclined to regard it. Too often it sows the seeds of life-long suffering—for the virus having extended up the interior of the uterus, and along the Fallopian tubes, sets up an acute or chronic inflammation of the ovary—which in very many cases resists all medicinal treatment. It is in such that removal of the ovaries is the only treatment likely to be followed by permanently satisfactory results.

#### SARCOMA OF THE MESENTERY.

Dr. MANTLE shewed an example of this comparatively rare condition. The following notes were taken by Dr. Duncan of Catchgate, under whose care the patient was:—

W. S., aged 27 years, miner, complained about eight months ago of diarrhœa, accompanied by pain in the left iliac region. His own family and personal history, as far as could be ascertained, were good, with the exception that he at one time indulged rather freely in alcohol. For two or three months previous to the onset of the diarrhœa, the patient felt that he was losing strength and flesh. Under treatment the diarrhœa and pain disappeared in a

few weeks, he went off for change of air, and was not seen for about two months. Towards the end of September, 1888, I was again consulted by him on account of a swelling in his left side, which he said caused him a considerable amount of pain. He was now more emaciated than when seen before. On examination, a distinct swelling was seen in the left hypochondriac region, extending downwards and inwards, into the left iliac, epigastric, and umbilical regions. The tumour was dull on percussion, and on palpation was found to be hard, dense, and resistant. It was not affected by respiration. The provisional diagnosis was an abdominal tumour, and after an examination of the blood under the microscope, the spleen was ultimately fixed upon as the seat of the disease. There was a very marked increase in the number of white corpuscles. The patient made no improvement under treatment. The tumour gradually increased in size, causing difficulty in micturition; ascites set in, and he gradually sank, dying from exhaustion in the beginning of January, after an illness of about nine or ten months' duration. The *post-mortem* examination shewed a large tumour filling the abdominal cavity, which took its origin from the mesentery. The glands in the neighbourhood were affected. The organs generally were healthy.

Dr. Mantle remarked upon the latency of any severe symptoms developing, the man only being confined to bed a few weeks; also upon the enormous increase of white corpuscles which examination of the blood shewed. He did not see any reason why this should not be so in any case of sarcomatous growth, but he did not remember having noticed this fact before. This and the man's aspect partially led to the spleen being suspected. He pointed out to the meeting how the growth had followed the folds of the peritoneum, and involved the wall of the intestine. He had examined the growth microscopically, and found it to be a round-celled sarcoma.

Dr. OLIVER quite agreed with Dr. Mantle that the case of sarcoma of the mesentery was extremely interesting from a blood point of view. The blood was found to be normal. This was certainly unusual and not what he would have expected. Sarcomatous tissue, wherever and in whatever quantity found, because it was an altered condition of the embryonic tissue of the middle layer of the blastoderm—one of the functions of which was hæmopoetic—generally gave rise to an excess of white corpuscles in the blood. A leucocytosis was therefore to be expected not only in such but in ordinary inflammatory states as well—Mr. Gostling having shewn that in the course of the formation of abscesses, pelvic cellulitis, and so forth, there is an excess of white corpuscles in the blood.



## MALIGNANT TUMOUR OF BOWEL CAUSING OBSTRUCTION.

Dr. J. DRUMMOND : Mr. President,—The specimen which I bring before you to-night is in no way remarkable in itself. It is more on account of the interesting clinical history presented by the patient, that I venture to bring it before you.

Mrs. M., aged 57 years, married, has always enjoyed good health until two years ago. Her family history is particularly good, her parents and grand-parents all having lived to great ages, and free from hereditary disease of any form. She first complained of stomach derangement, and was treated in Newcastle for dyspepsia without benefit. She came under my care about two months ago, the chief symptoms at that time being intense jaundice and rapid emaciation.

As in the case just described by Dr. Duggan, there were almost no other physical signs to indicate the nature of the disease. Of course, the diagnosis lay between gallstone catarrhal or other obstruction of the bile duct, and malignant disease situated in or near the liver. There was no pain or vomiting, and very slight increase of liver dulness. This continued for about six weeks, the patient neither improving or getting worse. In the seventh week from the appearance of the jaundice, however, the patient began to complain of pain and a feeling of discomfort after taking food. This increased in severity, and vomiting began to take place, and this increased to such a degree that she could not take any food without pain and vomiting. On examining the abdomen at this time, the stomach was found to be greatly dilated, and all the symptoms pointed to obstruction of the pyloric end of stomach. I therefore had recourse to rectal feeding, giving beef peptonoids, milk, eggs and brandy every few hours. I also washed out the stomach daily with the syphon tube, which gave great comfort to the patient. In similar cases I have found this to give greater relief to symptoms than any quantity of narcotics; in fact, the patient never complained of pain after this mode of procedure was adopted. In washing out the stomach a quantity of dark-coloured fluid, and ultimately bright blood, was brought up; this, of course, pointed to hæmorrhage from a tumour which had ulcerated into the stomach or bowel.

The patient died from exhaustion and hæmorrhage two months from the date of first having been seen by me. On making a *post-mortem* examination, the tumour which I now shew you was found. It was situated about four inches from the pyloric end of the stomach, and almost completely obstructing the duodenum. The gall-bladder was greatly distended with bile, owing to the bile duct being involved in the tumour. The disease had commenced propably in the bile duct, and gradually encroached on the adjacent wall of the bowel till obstruction occurred. The tumour

is evidently a sarcoma, shewing under the microscope a well-defined stroma of connective tissue, the interspaces being filled with large nucleated cells. The tumour is very hard and fibrous in its interior, being of a softer nature towards the circumference.

This case, as well as the two other abdominal tumours shewn to-night, illustrates the great difficulty in making a diagnosis as to the exact nature of the disease, and this can sometimes only be done at the *post-mortem* examination.

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# RESULTS OF MAJOR AMPUTATIONS TREATED ANTISEPTICALLY IN THE ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE, DURING THE LAST TEN YEARS AND NINE MONTHS.

By FREDERICK PAGE, Honorary Surgeon to the Royal Infirmary; Examiner on Clinical Surgery in the Universities of Edinburgh and Durham.

The following table gives the results of major amputations treated antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, during the year 1888.

TABLE I.

*Table of Major Amputations treated antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, during the year 1888.*

	INJURY.			DISEASE.			TOTAL.
	NO.	R.	D.	NO.	R.	D.	
Double Amputations .....	..	..	..	..	..	..	..
Hip Joint .....	1	..	1	..	..	..	1
Thigh .....	1	1	..	10	10	..	11
Knee Joint .....	..	..	..	..	..	..	..
Leg .....	4	1	3	2	2	..	6
Ankle Joint .....	1	1	..	13	13	..	14
Shoulder Joint .....	2	1	1	1	1	..	3
Arm .....	2	1	1	..	..	..	2
Forearm .....	2	2	..	3	3	..	5
Wrist .....	..	..	..	..	..	..	..
	13	7	6	29	29	..	42

The number of amputations is unusually small and the mortality unusually high. Of the 42 patients treated, six died = 14·2 per cent. Twenty-nine of the operations were for disease, and among these there were no deaths. Last year we had 43 amputations for disease without a death, so that we have now had 72 consecutive amputations for disease without a single death. Of the 13 amputations for injury, six patients died, which is a mortality of 46·1 per cent., contracting very unfavourably with the mortality following amputation for injury during the five previous years. From January 1st, 1883, to December 31st, 1887, exactly 100 major amputations were performed for injury, and four patients died.

The mere statement, however, that so many cases have been operated upon, and that so many proved fatal, is not of much value as a criterion of success or otherwise, unless details are given of each death, and it is with the view of making these statistical records valuable that I have now for a term of six years carefully tabulated the circumstances accompanying each death, the actual cause of death, and the age of the patient. We want in an enquiry of this kind to know particularly how many patients have died from



blood-poisoning. That is the crucial question. Blood-poisoning is to a considerable extent an avoidable cause of death. The age of the patient is a matter of great importance—determining, as it does, more perhaps than any other single circumstance, the result of the case. We have been wonderfully free from deaths from blood-poisoning. During the five years preceding the past year only two cases occurred; but the following history of the six deaths in 1888 is less satisfactory than any preceding record.

PRECISE CAUSE OF EACH DEATH IN THE YEAR 1888.

1.—Man, aged 49 years, amputation of the leg five months after compound fracture; stump very nearly healed; death from blood-poisoning. The blood-poisoning is supposed to have been due to the man spending several hours smoking in a water-closet.

2.—Man, aged 44 years, upper arm crushed off close to shoulder joint by wheel of a locomotive. It was difficult to cover the wound with skin after dis-articulation; sloughing took place; death from blood-poisoning.

3.—Man, aged 49 years, primary amputation of leg below knee for compound fracture; part of the foot of the other limb was removed at same time; death in 14 days from blood-poisoning.

4.—Boy, aged 14 years, primary amputation at the hip; death in a few hours from shock.

5.—Boy, aged 15 years, admitted from a distance with gangrene of foot following compound dislocation of ankle joint received a week before; death from tetanus six days after amputation below the knee.

6 —Woman, aged 62 years, primary amputation of right upper arm for compound fracture. In addition there was a very extensive laceration of the soft parts of the left leg and thigh. The amputation remained sweet and progressed favourably, but the lacerated wound of the lower extremity became septic, and patient died from blood-poisoning 14 days after the accident.

It will be seen that of the six deaths four are returned as due to blood-poisoning. Two of these four patients were 49, one 62, and one 44 years of age. The other two were boys—one, aged 14 years, died soon after primary amputation at the hip, from shock; the other, aged 15 years, from tetanus, which is regarded as a form of blood-poisoning by some eminent authorities. I do not think it wise to look upon these deaths from blood-poisoning as accidental; and I feel they should stimulate us to most diligently search out and exclude every possible source of infection. I am perfectly satisfied that years ago the high amputation mortality in this hospital was due to a large extent to the circumstance that the surgical cases were dressed by the same persons who made the *post-mortem* examinations. I feel very strongly that the house-surgeons and the dressers ought not to be permitted to enter the

*post-mortem* theatre or to frequent the dissecting room during their tenure of office. There is risk, to my mind grave risk, of infection being brought from those places, and it is an avoidable risk to which patients need not and should not be exposed.

The following table gives the results of amputations during the last six years—during the time that the precise cause of each death has been recorded.

TABLE II.

*Table of Major Amputations treated antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, from January 1st, 1883, to December 31st, 1888—a period of six years.*

	INJURY.			DISEASE.			TOTAL.
	NO.	R.	D.	NO.	R.	D.	
Double Amputations.....	2	1	1	..	..	..	2
Hip Joint.....	1	..	1	10	7	3	11
Thigh.....	16	14	2	79	76	3	95
Knee Joint.....	4	4	..	1	1	..	5
Leg.....	27	24	3	35	33	2	62
Ankle Joint.....	15	15	..	53	52	1	68
Shoulder Joint.....	5	4	1	7	7	..	12
Arm.....	18	17	1	11	10	1	29
Forearm.....	18	17	1	15	15	..	33
Wrist.....	7	7	..	..	..	..	7
	113	103	10	211	191	10	324

Here we have 324 major amputations with 20 deaths = 6·1 per cent.; 113 amputations for injury with 10 deaths = 8·8 per cent.; 211 for disease with 10 deaths also = 4·7 per cent.

If we add the above table to one already published, giving the results of amputation from April 1st, 1878, to December 31st, 1882, we get the following results for the period of ten years and nine months.

TABLE III.

*Table of Major Amputations treated antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, from April 1st, 1878, to December 31st, 1888, a period of ten years and nine months.*

	INJURY.			DISEASE.			TOTAL.
	NO.	R.	D.	NO.	R.	D.	
Double Amputations.....	2	1	1	..	..	..	2
Hip Joint.....	1	..	1	12	7	5	13
Thigh.....	32	25	7	116	110	6	148
Knee Joint.....	7	6	1	5	5	..	12
Leg.....	47	40	7	59	57	2	106
Ankle Joint.....	19	19	..	69	68	1	88
Shoulder Joint.....	8	7	1	9	9	..	17
Arm.....	29	26	3	17	16	1	46
Forearm.....	26	25	1	19	19	..	45
Wrist.....	7	7	..	..	..	..	7
	178	156	22	306	291	15	484

484 cases with 37 deaths = 7·6 per cent. Of these amputations, 178 were for injury, and 22 patients died = 12·3 per cent. ; 306 were for disease, and 15 patients died = 4·9 per cent.

Mr. J. R. BAUMGARTNER said it was important to know the dates on which the cases of blood poisoning occurred. It might be that they were not separate cases, but a series of cases arising one from another.

Mr. WILLIAMSON: Mr. President,—Mr. Page has raised an interesting point in saying that he would exclude from an operation all those who have been recently in the *post-mortem* or dissecting room. For my own part I have no objection to their presence, provided the operation is done antiseptically, and that all who take part in it wash their hands and soak them well in 1·20 carbolic solution. It will be a great, a very great, disadvantage if surgeons are precluded from entering the dissecting room, from practising operations on the dead subject, and from following up cases at *post-mortem* examinations. When a wound becomes septic, it is usually due to some slip or carelessness—an instrument is called for and used before it has been thoroughly purified—an assistant puts his uncleansed fingers into the wound—the solutions are not of the right strength, or the sponges have not been perfectly disinfected. Can we be certain that the nurse in charge of the sponges understands the importance of having them pure, and that she has taken the necessary trouble? When septic material gains access to a wound in a hospital, it is much more likely to have been brought from a septic wound than from the dead-house. The septic wound contains exactly the kind of material which will infect a healthy wound; and I consider that a dresser who comes from such a wound, is much more dangerous than one who comes from the dissecting or *post-mortem* room. At the same time, no surgeon who had to perform a severe operation would ever think of going near a case of peritonitis, or of any putrid disease, whether alive or dead, and I should avoid the same cases in the *post-mortem* room that I should avoid in the wards. I am not so much afraid of a wound becoming contaminated through the atmosphere as of the poison being conveyed to it by actual contact.

Mr. PAGE: Sir, the issue Mr. Williamson has raised is not the one I put before the Society. I repeat that I would not allow a house surgeon nor a dresser, during his tenure of office, to enter the *post-mortem* room or to frequent the dissecting room, because I believe there is great danger that infection may be conveyed from those places to the patients in the Infirmary. To forbid a surgeon to see in the *post-mortem* room the result of a case under his own care, or to perform an operation upon the dead subject, is quite another matter. A surgeon is almost compelled to do both, but the less he frequents the deadhouse and the dissecting room



the less will there be risk of his bringing infection from those places. To say that soaking the hands in a solution of carbolic acid, 1 to 20, or of any other strength, disinfects a man who is exposing himself to an infected atmosphere is to my mind childish. If the man is liable to bring infection adhering to his hands, is he not also liable to bring it clinging to his face, his hair, his clothes—is there not more risk of his doing so? Mr. Williamson says when a wound becomes septic it is usually due to some slip or carelessness. Precisely no graver slip could, I should say, be made than to take part in surgical operations wearing clothes worn at a *post-mortem* examination, and should all the instruments, sponges, &c., be actually surgically clean, of what avail is that if an assistant, wearing the clothes he wore a few days or hours before at a *post-mortem* examination, takes part in the operation. You, Mr. President, have very forcibly pointed out the danger of trusting to an if—if the house surgeon or dresser be thoroughly disinfected the danger is reduced to a minimum; but, sir, prevention is better than cure, and it is wiser not to run any unnecessary risk, such as allowing house surgeons or dressers to take part in *post-mortem* examinations (an admitted source of infection) entails. The brilliant success of such men as Tait and Keith, who rigidly exclude from their operations, all who have recently been brought in contact with an infected atmosphere, is a lesson not to be forgotten. I do not care to enter into the comparative danger of infection being brought from a septic wound, from the dead house, or the dissecting room. What, I say is, the risk of bringing it from any and from every source, and of conveying it either by contagion or infection, ought to be avoided.

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[Dr. Redmond having had to leave, it was agreed by the meeting that the following paper be held as read, and published in the Transactions.]

## THE DIAGNOSIS OF SCARLET FEVER, WITH AN ILLUSTRATIVE CASE.

By C. STENNET REDMOND, L.K.Q.C.P.I.

On Monday morning, December 3rd, 1888, I received an urgent telegram to visit the residence of a gentleman some miles out in the country, whose wife I had a few days previously paid my final visit to after her confinement.

On my arrival, I found that one of the under servants, who had been out of sorts for a day or two, had become very much worse and feverish the night before. Her temperature, taken by the monthly trained nurse, being (at 10 p.m.) 103·2.

The patient, a stout, well-developed girl of 17 years of age, informed me that for two or three days previously she had been feeling out of sorts—no appetite, more or less inclined to vomit, thirsty, headache, pains in the back and limbs, chilly, and finally sore throat and general feverish condition.

When I saw her at 10·30 a.m., she complained of headache, great thirst, and feverishness; stiffness of neck and tenderness at angles of jaw; pains in back and limbs; and sore throat. Her temperature was 103 and pulse 144. The eyes were suffused; the face very flushed; and a diffused redness was observed over forehead, face, and neck. There was a less markedly-developed rash over the back, but the finger nail drawn across it gave the well-known and characteristic "white line." The tongue was very furred and red at top and edges (the nurse had given a saline aperient the previous night, which acted well). The mucous membranes of tonsils and fauces generally was of a bright red colour and somewhat œdematous. The urine was high-coloured.

Naturally my patients were very anxious for a definite opinion as to the nature of the illness; and after careful consideration both of the history of the case and the patient's then condition, and especially having regard to the high initial pyrexia and unusually rapid pulse, I pronounced the case to be scarlet fever, and pointed out the urgent need of her immediate isolation, and if possible removal to hospital, as there were four children in the house besides four or five female servants.

With this view I arranged to call on my way to the station, upon the local surgeon, Mr. X., and see how this could be soonest done. On explaining matters to him he informed me that

there were, or had recently been, some 50 or 60 cases of scarlatina in the village "not scarlet fever, you know, just a mild form" (*sic*). He informed me that he was not Medical Officer of Health for the district, but that Y. was, who resided at the next village, and arranged to communicate with him at once and see what could be done.

On my visit next morning I found that owing to difficulties in the way of getting the girl to any hospital for infectious diseases, she had been removed to a cottage in the grounds where the gardener and his wife lived, he going elsewhere and she attending on the girl, and it was arranged that Mr. X. (the village surgeon) should attend to her. The girl's temperature was 102·5 and pulse 134. The rash was less marked, but the throat symptoms were worse. The usual treatment was adopted, viz., mist. diaphor. and a chlorinated gargle, together with a liberal use of disinfectants.

Mr. Y. (the Officer of Health) had promised to see the case that morning, but I was unable to await his arrival, having to catch a certain train back.

On my visit the next day I was informed that Mr. Y. had examined the girl the day before and pronounced the disease not to be scarlet fever—but nevertheless enjoined isolation and the continued use of disinfectants, &c., &c.

The girl's temperature was 102 deg. and pulse 130, the rash had practically disappeared, but the throat if anything worse, with considerable mucous secretion, and some pain and difficulty in swallowing.

I pointed out to my patients that I saw no reason to either modify or alter the diagnosis I had formed of the case—especially as I had happened to have had exceptional experience of scarlet fever in the practice of the Gateshead Dispensary—and that I looked upon the case as one of that by no means uncommon type, where nature elected to eliminate the zymotic poison through the medium of the glosso-pharyngeal mucous membrane, rather than by that of the skin in the form of a more copious rash. I wrote to Mr. Y., pointing out the reasons for my diagnosis, and he replied that he considered the case not one of scarlet fever, but of "infectious sore throat."

On December 11th, Mr. X. wrote to inform the girl's mistress that she was fit to be moved to her mother's (in another district), which was accordingly done, and added, "I have sent a message to that effect to Mr. Y. so as to keep matters right. He quite concurs with me that the case is *not* one of REAL scarlet fever, and therefore we won't have any 'peeling' of the skin."

On Thursday, 20th December, I was asked to visit the girl at her mother's house, and found her in the following condition:—

Face pale and pasty-looking; skin under both eyes puffy and œdematous—more so under right, which pitted on pressure; both



ankles swollen, and "pitting" on pressure. Cuticle desquamating off hands and feet; water passed freely, but rather smoky-looking; bowels not opened since Wednesday week (eight days). The skin began to peel on Thursday last, the day after she was moved; the face became puffy on Monday last; the ankles were only noticed last night. Had severe pains in the back last night and several nights previously. I ordered her a calomel and jalap powder at once, and a mixture with mag., sulph., liq. ferri perchlor, tinct. digitalis, and aq. chloroformi *ter die*. To have a hot bath each night, and be well scrubbed all over with flannel and carbolic soap, and after drying to be rubbed all over with olive oil, containing 1 in 80 pure carbolic acid.

I brought back a sample of urine to examine, and the following is the result: Urine cloudy, slightly smoky, and frothy on agitation, with an opalescent deposit about one-third on standing a few hours, which was dissipated both by heat and nitric acid. Reaction strongly acid; sp. g. 1030; *no albumen* could be detected.

Under treatment the symptoms soon became relieved, and the cuticle peeled off her feet in flakes, some as large as a threepenny piece. On December 31st her urine was pale, opalescent or slightly smoky, with a slight cloudy deposit of lithate, dissipated by heat or nitric acid. Reaction acid, but not markedly so; sp. g. 1015; *no albumen* could be detected.

The treatment was continued for a couple of weeks longer, until every particle of cuticle had peeled off the feet. On January 26th, the girl came to my surgery that I might examine her, and certify that she might, with safety, return to her duties as under-nurse, which I accordingly did.

*Remarks.*—I have ventured to bring this case before the Society because it appears to me that there are one or two points of ethical interest involved, especially bearing upon the relations between private practitioners and Medical Officers of Health.

I am free to confess that I was more than surprised at the action of Mr. Y., a gentleman very much my junior in years and experience, in so flatly negating my diagnosis; and were it not for the fact that I enjoyed the fullest confidence of my patients, I might certainly have been placed in a very awkward predicament, especially as Mr. X. subsequently coincided with Mr. Y.

Had I been weak enough to give way to the two adverse opinions, the girl would in all probability have been re-admitted to her situation while a source of infection, and the children would no doubt have contracted the disease, and my reputation would have suffered irreparable injury; while on the other hand, had I been a junior practitioner, or less known to my patients, and the Medical Officer of Health a senior, my opinion would, most probably, have been set aside, and my further attendance dispensed with.

The clinical point of interest in connection with the case is that,

though to my mind there is no doubt as to the case threatening to develop into renal anasarca, as evidenced by the puffy ankles and œdema of face, yet no albumen was detected in the urine. This, however, seems capable of explanation by the fact of the case, at a very early stage, having being placed under active and appropriate treatment.

The case also reveals the remarkable fact of a modern practitioner adhering to the popular error as to scarlatina being a milder form of scarlet fever.

I think it right to add that both Mr. X and Mr. Y are personal strangers to me, my only knowledge of the former being the incident referred to when I called upon him.

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# NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

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## SESSION 1888-89.

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### MARCH MEETING.

THE SIXTH MONTHLY MEETING (the last of the Session) of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, March 14th—Dr. Murphy (President) in the chair.

#### NEW MEMBERS ELECTED.

Baigent, William, M.B., Royal Infirmary, Newcastle.  
Morton, Thomas, M.B., Durham.

#### NOMINATION OF OFFICE BEARERS FOR 1889-90.

It was proposed by Dr. EMBLETON, seconded by Dr. BROADBENT, and supported by Dr. McLAGAN, "That the Officers for this Session be re-elected for Session 1889-90."

#### REQUEST TO MEMBERS.

Dr. EMBLETON wished to ask, by leave of the President, if any member of the Society has printed or other papers relative to the early years of the Newcastle-upon-Tyne School of Medicine and Surgery, from 1834 to 1854; if so, they would greatly oblige him by a loan of them, to assist in compiling a history of the School on which he is engaged.

#### ANEURISM OF LOWER PART OF ABDOMINAL AORTA.

Dr. LIMONT: In December, 1886, I shewed this patient to the Society. He had an abdominal aneurism which he first noticed a year before, but his symptoms, viz, heat and numbness of the left leg, had been present for four years.

Full particulars are given in the Transactions of that meeting. Prolonged rest, with iodide of potassium, had failed to produce any effect. Compression had been tried, but had to be given up on account of dyspnœa, &c. I advocated ligature of the aorta, but failed to get support. Consequently nothing was done. Since then the patient has, without special care as to rest, been taking fairly regularly 20 grain doses of iodide of potassium, and I now present him for inspection by the members of the Society.

Comparing his present condition with what it was two years ago, I should say that the aneurism is slightly smaller; the



pulsation, which is low down in the aorta and probably involves the commencement of the iliacs, has decreased in both femorals, and is now imperceptible in the left vessel. The patient has little discomfort, and gets about fairly well.

The man is to be congratulated that he neither fell into the hands of the surgeons, and had his aorta ligatured, nor remained in the hands of the physicians to be subjected to the painful combination of "semi-starvation and perfect rest."

#### ANEURISM OF THE UPPER PART OF THE ABDOMINAL AORTA.

Dr. LIMONT regretted that this patient was too ill to be shewn. It contrasted very markedly with the one just shewn. It was situated high up in the epigastric region; it had given rise to symptoms for five months only, the most troublesome being burning pain in the lower dorsal region of the spine.

Within the last few days the patient had emaciated very rapidly; had become jaundiced, and begun to vomit a coffee-ground-like material. The aneurism had changed in shape, and had apparently ruptured.

#### THORACIC ANEURISM.

Dr. LIMONT: This patient, as can be seen at a glance, has an aortic aneurism.

Three years ago he was an in-patient of this Hospital, with an aneurismal projection at the same spot, which had appeared three months previously, and which is recorded as being of the size of a Tangerine orange. He remained in hospital four-and-a-half months, and at the end of that time the projection had disappeared. He states that after going home the beating was quite undiscoverable, and he suffered no pain or shortness of breath. He then began to work, his duty being to repair the bellows at a rivet-furnace. He continued at this for two-and-a-half years without any symptoms. At the end of that time, however, the projection began to re-appear, and he suffered some pain and shortness of breath.

This projection measures  $3\frac{3}{4}$  inches by  $2\frac{3}{4}$  inches, and occupies the space behind the second, third, and fourth cartilages. When he was in hospital before, it did not extend below the third cartilage.

The patient is 61 years of age; he was a sailor for 39 years. Over his shins there are brown cicatrices, suggestive of syphilis. He suffers a good deal from symptoms pointing to enlarged prostate.

There is a peculiar condition of the pupils; both are extremely small, and apparently immoveable; sight presbyopic. He states that all his family of nine children have the same small pupils, and that his father's eyes were the same.

Patient has been under treatment for two months without any change in the size of the projection, but the pulsation is not so strong.

The case is an interesting one ; among other reasons, on account of the somewhat advanced age at which the aneurism appeared, the rapidity of the first development of the projection, the quickness and completeness of its disappearance, and the complete immunity of the patient from symptoms for two-and-a-half years, during the greater part of which time he was employed in manual labour.

The accompanying cast of the anterior thoracic wall shews the condition when he was admitted two months ago.

Professor PHILIPSON stated that the position of the thoracic aneurism was of interest, it being evidently situated immediately outside the pericardium, in the ascending portion of the arch of the aorta. The beneficial influence of the treatment by large and increasing doses of potassium iodide was clearly illustrated by the improvement in both the patients. He expressed himself as decidedly in favour of the treatment, in conjunction with rest, and a regulated diet.

#### DROP WRIST FROM LEAD IMPREGNATION.

Dr. LIMONT : This man has, as you see, a "drop wrist" on each side. This has been present for three months. It came on in the course of one night, after suffering for four days from colic, and a feeling of weakness in the wrists. He has been employed in the lead works—both in wet and dry parts of the process for ten years, and has on previous occasions suffered slightly from "lead symptoms." You see he is markedly anæmic ; there is also a well marked "blue line."

He cannot extend any of the fingers, nor can he raise the hand with the fingers flexed into the palm ; the extensors of the fingers, and the special extensors of the wrist, are therefore paralysed. On supporting the proximal phalanx, he can, however, extend the two distal phalanges of the fingers, by the aid of the interossei and lumbricales. He can extend the phalanges of the thumb. He cannot, by his flexors, compress the dynamometer, unless the wrist be supported by one hand, which thus takes the place of the extensors. When the patient attempts to flex the forearm, while it is held semi-extended and supine, the supinator longus stands out firmly.

There is marked wasting of the paralysed muscles, and they do not respond to the electric currents.

The deltoid and biceps are small and weak, and coarse fibrillary tremors are to be seen in them.

I made an analysis of the urine four days after patient began to take iodide of potassium, and found a large quantity of lead was being excreted by the kidneys.

## PAROXYSMAL HÆMOGLOBINURIA.

Dr. LIMONT: This man, aged 37, a labourer, first came under my care in January of this year. He then complained of what he termed "ague."

A year previously, whilst working in a wet and cold place, he had a shivering fit, and on passing his urine a short time afterwards noticed that it was of a very dark colour.

Subsequently any exposure to cold brought on shivering, followed by a hot stage and by passage of dark-coloured urine.

During the cold stage he says the fingers and toes appear white and dead. During the hot stage there is headache and thirst, and the first urine afterwards passed is dark-coloured, all subsequent urine being clear. The shivering begins one to three hours after exposure, and the dark urine is generally passed within an hour of the shivering. After the attack his eyeballs and skin have been noticed to be yellow. Patient was admitted on January 2nd, and for two days kept in bed, and no symptoms appeared. On January 5th he was allowed to get up, and that night he shivered; temperature rose to  $101^{\circ}$  F., and he passed urine, which was very acid; specific gravity 1022; copious, dirty-brown sediment; contained considerable quantity of albumen, gave guaiacum and ozonic ether reaction. Under the microscope one found epithelial cells; a large quantity of dark shining granules, a fair number of tube casts studded with shining particles; no red blood corpuscles.

The attacks have been present for a year, but were absent during July, August, and first half of September.

Twenty years ago the patient almost certainly suffered from syphilis. Seventeen years ago he first (when a soldier in India) suffered from ague. Since then he has had malarial attacks, especially in 1872 and 1873, 1879 and 1880. Five years ago he had lumbago.

On March 8, after lying in hospital a fortnight without any symptoms, he was sent into the garden for a little. This was followed by shivering, without any rise of temperature being noted, but followed by the characteristic urine.

Since then he has had no attacks until to-day (March 14). In order to test the effect of treatment (which consisted of quinine and iron), he was ordered a bath last night, and to go into the garden this morning. The following careful notes, taken by my house physician (Mr. Gibbard) give an interesting account of the attack.

*Paroxysm on March 14th.*—10.35 a.m. Patient out in garden; sensation of cold in hands and feet, and a cold, creeping sensation down back (not exactly over vertebral column, but commencing near angles of scapulae, and running downwards and inwards to meet in lumbar region). Slight shivering for a few seconds, then no shivering for half a minute, and so on. Felt aching in knees,



legs weak, general malaise, with pain in epigastrium, no nausea or vomiting. No pain over kidneys, or bladder, nor anything similar to renal colic. Desire to micturate, passed about two drachms of dark-coloured urine (not so dark as porter). Came in.

10.45 a.m. Seen immediately, and found complaining of sensation of cold, occasionally a slight shiver given. Skin pale, cold, otherwise normal (not dry). Fingers *markedly pale* from middle phalangeal joints to tips, quite cold, nails blue. Respiration normal. Pulse 76, rather small and wiry, regular. No headache. Temp., 98 deg. F. Urine, 5½ drachms passed, strongly acid, like port wine.

11.15. Temp., 99.8.

11.30. Temp., 100.4.

1.15 p.m. Temp., 100.6. Patient feels warm now, sensation of cold left him about one o'clock. Passed 3½ oz. urine at 12.45, strongly acid, sp. gr. 1018, same colour as before (port wine).

3.15 p.m. Temp., 99.2. Feels warm. Has not perspired, skin normal. Pulse 76, not so small, softer. No headache. Tongue slightly furred in centre. No jaundice. Has just passed 4½ oz. urine, sp. gr. 1012, lost its port wine colour, clear, only a trace of albumen in it.

5.15. Temp. normal. Urine lost all red colour.

On the table are placed several specimens of the urine passed—the first two are clear, but of the colour of claret or port wine, and at the bottom of the glass there is an earthy deposit; the second two have the appearance of normal urine, and give the re-actions neither of blood nor albumen.

Through the kindness of Professor Bedson, I was able to test the urine by the spectroscope, and the two absorption bands of oxyhæmoglobin between D and E were distinctly made out.

Professor PHILIPSON agreed with Dr. Limont that the hæmaturia was malarial, and as quinine had failed to produce any permanent influence suggested the substitution of cinchonine. Professor Philipson stated that he had treated several cases of chronic lead poisoning with sodium chloride in place of potassium iodide. A soluble chloride of lead was formed, which was eliminated by the kidneys. This treatment he had found to be very successful.

#### SUCCESSFUL MCEWEN'S OPERATION FOR GENU VALGUM.

Mr. BLACK: This little boy, A. D., age 8½ years, came under my care at the Children's Hospital three years ago suffering from genu valgum of a severe type; the distance between the internal malleoli, when in the upright position, being nearly 14 inches. On account of his age I thought him a suitable case to endeavour to rectify by splint and careful bandaging, but after twelve

months' trial I was obliged to discontinue the treatment as useless; he was sent home for a few weeks, and was again re-admitted to have McEwen's operation performed, which was done in the usual manner under Listerian precautions. The legs were placed in a box splint and the dressings remained untouched for five weeks, when they were removed, and the limbs were so straight and the bones at the seat of section so firmly united that no further dressing or support was required. He has now been running about on them for the past twelve months, and is much pleased at the improvement in his personal appearance.

#### REMOVAL OF UPPER JAW.

The PRESIDENT: This patient is a woman, æt 56, from whom I removed the left upper jaw a month ago. I bring her before the Society for suggestion as to the best form of obturator to be used in such cases, and I shall be very pleased to hear the experiences of members on this subject. I would also wish to draw the attention of the members to the very slight disfigurement caused by the incision used—that of Sir William Fergusson—which leaves less traces of the operation than any other, and at the same time gives ample access to the disease. I pass round the “Operative Surgery” of M. Farabœuf, which gives an immense number of incisions, but, to my mind, that of Sir William Fergusson—erroneously given here the name of Mr. Liston—is the best.

I am also anxious again to draw the attention of the Society to the great comfort and advantage of in this and other operations on the face and palate of having the patient's head lying directly downwards over the end of the operating table, thus permitting all blood to flow over the face downwards and not into the trachea. This method I learned some years ago from M. Trelât, and have found it of very great benefit. The operation itself presented nothing worthy of record, the temperature never reached 100°, and the incision healed by the first intention. The tumour is a sarcoma.

It is interesting to note how frequently malignant growths occur in the jaw of women, whereas it is very rare to find them occurring in the mouth or lips.

#### THYROIDECTOMY.

Dr. HUME shewed a case of thyroidectomy in a girl, aged 14. Two sketches (drawn by Dr. Baigent) were exhibited, giving the appearance of the patient's neck before the operation, and shewing that the enlargement affected chiefly the isthmus or central portion of the gland. The enlargement had existed for two years, and, besides other treatment, had been repeatedly injected with an alcoholic solution of iodine. Dyspnœa had been a marked symptom from the commencement of the enlargement, and it was on account

of the persistence and urgency of this symptom that removal of the tumour was undertaken. The operation was done on February 22nd, and the wound has now healed with the exception of a small granulating portion at the lower end. The incisions were a longitudinal and two lateral; and attention was drawn to the slight extent of resulting scar. In performing the operation great care was taken not to cut or lacerate the capsule of the gland or the large veins immediately beneath the capsule. When the overlying parts had been reflected the right superior thyroid artery was first looked for and ligatured. Then the left superior thyroid was sought, but as there was found to be a supernumerary lobe surmounting the left side of the tumour and connected with the rest of the gland by an isthmus, this connection was double ligatured and divided. In the same way the connection between the tumour and the right lobe was ligatured and divided; two considerable portions of gland substance, namely the supernumerary lobe and the right lobe, being thus left, to secure the patient against risk of cachexia strumipriva or myxœdema. The left lobe appeared to be incorporated in the tumour. No left inferior thyroid artery was found, but several small vessels were ligatured in its position. Altogether the loss of blood was insignificant. Patient had made an even recovery. The tumour removed was also exhibited.

Dr. GOWANS congratulated Dr. Hume on the successful result of the case. So far as he knew it was the first case that had been so treated in the north. It was a matter for congratulation that the anatomical relations favoured removal in such a manner that part of the gland remained, and would so prevent myxœdema. The ultimate result as regards the health of the patient would, he believed, be good.

Dr. DRUMMOND remarked that in addition to myxœdema, patients from whom the thyroid was removed were exposed to another risk—he referred to the development of tetany, which, as was well known, often came on after the operation of thyroidectomy. When it occurred it was supposed to be due to interference with the sympathetic ganglia of the neck, the anterior cornual structures of the cervical cord being in consequence congested.

The PRESIDENT congratulated Dr. Hume on the result of his operation, and remarked that it was curious so few cases were operated on in this country. Abroad it was a fairly common operation, and one surgeon had lost only five out of his last 100 cases.

Dr. OLIVER: One cannot but congratulate Dr. Hume upon the successful result of his operation. It is not, however, upon the surgical aspects of the case that I should like to say a few words, as upon the functions of the thyroid gland. To all appearance



Dr. Hume's patient has not suffered at all from the loss of thyroid tissue, and this is important, for recent physiological experiments have shewn that the thyroid gland is a manufacturer of red blood cells. Some time ago I had the opportunity of seeing the monkeys which Mr. Victor Horsley had operated upon. Those, from whom he had removed the whole of the thyroid gland, developed the signs and symptoms of a diseased condition exactly like myxœdema; but in those from whom he removed only one-half of the gland no bad effects seemed to follow. And yet there was this peculiar result. If the animal was allowed to live for a year or 18 months, the half of the thyroid gland which had been left in the body was found to have undergone very marked hypertrophy. Compared to what had been removed months previously, it was nearly twice the size—a fact which shews us that the thyroid gland must not be regarded as an obsolete organ, and therefore functionless; but that it is an active organ, and concerned, as Victor Horsley tells us, in the manufacture of red blood cells. But while I say that normal thyroid gland tissue is capable of undergoing hypertrophy when part of the gland is removed, I do not wish you to infer that the tumour will return in Dr. Hume's case. It is simply a good reason for Dr. Hume leaving, as he has done, some normal gland tissue capable of performing a blood-making function.

Dr. HUME, in reply, said he had not gone near the sympathetic, and did not therefore have any fear of tetany coming on. The great point in the operation was to avoid hæmorrhage, and this was best done by avoiding any tearing of the capsule.

#### THORACIC ANEURISM—A NEW PHYSICAL SIGN.

Dr. DRUMMOND shewed a man who was suffering from aneurism of the thoracic aorta, and said his object in bringing forward the case was to demonstrate a sign he had observed recently in some cases of thoracic aneurism, and to which he was inclined to attach a considerable amount of importance. The patient before them was 41 years of age, and a labourer. His history suggested that the symptoms of aneurism were recent. Three months ago, he first observed pain in the right side of his chest, in the neighbourhood of the sterno-clavicular joint, which passed up the right side of the neck and occasionally into the shoulder. A little later, this pain passed down the right arm, in which he also felt numbness. In addition, the patient complained of cough and a sense of choking from time to time. The pains were generally worse at night and after exertion. On examination, there were no very striking signs of aneurism to be made out, the most prominent being a loud, heavy second sound, audible chiefly in the first and second inter-spaces, about an inch to the right of the sternum; feebly marked,

deep pulsation, inequality of the pulses, and the sign to which he desired to call their attention. The latter was noticed in connection with the equality in the pulses, and was the fact that the size of the radial pulse depended upon the respiratory act—deep inspiration, for example, causing the inequality to disappear, and producing a pulse as voluminous as that on the opposite side; whilst the act of expiration, especially towards its end, was sufficient to diminish markedly the force of the beat, rendering it still smaller than before. There was in fact the reverse of the *pulsus paradoxus*. It was this particular point which he wished to emphasize in the case. As they would notice, it was the right pulse that was reduced. The explanation he would offer was that on drawing a long breath the chest expanded to such a degree as to enable the sac—which was probably compressing the innominate—to expand without exerting this pressure; whilst on the other hand, the diminution in the size of the chest cavity, brought about by expiration, was responsible for a more marked degree of pressure. He should remark that the patient had improved materially within the past two or three weeks as the result of hospital treatment, having lost his pains entirely; and the pulses could no longer be said to be unequal. It was to be observed, however, that the right pulse was still influenced by respiration. The patient was a heavy drinker, and had suffered from syphilis.

Dr. OLIVER: I should like to make this remark in regard to the sign of thoracic aneurism to which Dr. Drummond has drawn attention, viz., that it is not met with in cases of aneurism just without the chest. Some time ago I exhibited to this Society a man who was the subject of aneurism of the right subclavian artery. In his case there is now no pulsation in the aneurism when he is perfectly still or during inspiration, but during expiration pulsation becomes visible, and a bruit which until then is absent becomes quite audible. I have not had an opportunity of verifying Dr. Drummond's statement, but we must one and all gladly welcome any new physical sign which will help us in the diagnosis of aneurism.

#### EXCISION OF ELBOW.

Dr. GOWANS shewed a boy, 14 years, whose elbow he had excised, and who was shewn to have a useful arm.

#### PATIENT RECOVERED FROM IDIOPATHIC PNEUMOTHORAX.

Dr. BRADLEY expressed regret that his patient was unable to attend through working overtime, and thought this was the best test of his complete recovery. It was to be hoped that he could appear on another occasion.

## EYE CASE.

Dr. BRADLEY said: Sir, how this accident happened and its nature is as follows:—The man is a plater, and, while screwing a bolt, the bolt broke, and the washer flew up with great force, striking him on the eye. There was a great quantity of blood in the eye, and the swelling was also great. At first sight it appeared to me as if the lens were dislocated, but that is not so. I should be glad if any gentleman, interested in the eye, would kindly examine him, and make suggestions as to the best mode of treatment.

Patient was taken to the dark room and examined by Drs. Williamson, Hume, and others. Nature of accident: sub-conjunctival rupture of sclerotic, causing a large ciliary staphyloma above cornea, the treatment of which was considered to be best left alone.

## CANCER OF THE LARYNX—TRACHEOTOMY.

Dr. WM. ROBERTSON: E. S. E., æt. 49, married, came under notice 18 months ago at the Newcastle-on-Tyne Throat and Ear Hospital suffering from symptoms of laryngeal disease: 23 years ago he suffered from syphilis, which was said then to have been properly treated and cured. Shortly after he married, and is the father of 10 healthy children; his wife is strong and well. At the first examination of his larynx the left vocal band was noticed to be irregular in outline, immobile, and covered with a thin grumous discharge; the right band was apparently normal. The symptoms were: distressing cough, vox rauca, and emaciation; chest organs normal. Specific treatment was at once adopted—for the first few weeks iodide of potassium alone, then in combination with grey powder, with little benefit; corrosive chloride and other inhalations were likewise used.

In about three months' time the left wall of the larynx had become invaded by a pathological deposit effacing the vocal bands of same side, and fixing the left arytenoid cartilage. In another two months this deposit had extended to the right side of the larynx, causing destruction of same vocal cord in a similar fashion, without, however, implicating right arytenoid cartilage.

The patient now was lost sight of for six months; on returning, examination shewed the larynx on each side up to the level of the false cords the seat of fungating growths, that of the left side being the largest. The patient had by this time become markedly emaciated and voiceless. The cough was incessant at night, and swallowing gave pain. The left arytenoid was now fixed, abducted, and depressed.

A variety of remedies were applied locally to the larynx, ex. gr. lactic acid, menthol, and (once) chromic acid, but without effect. The galvano-cautery was once used but with no good result.



The chink left for respiration between the two fungating masses in the larynx becoming almost daily smaller tracheotomy was suggested to the patient, but was declined.

Chloral and paregoric were used as sedatives for the cough during the interval. One month before operation a phlegmonous swelling with pain began over the left side of the larynx, which rapidly increased in its dimensions, and extending from the left angle of the jaw (and fixing the same) down to the middle of the neck and round the front of the larynx, obscured all its land marks. The patient's condition with this became much more serious, respiration and swallowing being both alike difficult.

Consent was now given to operation. After chloroform was given a straight incision as that for tracheotomy was made along the middle line, as far as that could be made out, and on penetrating the deep layer of cervical fascia, which was clearly seen, a large escape of (about 2 oz.) foul smelling pus took place from a considerable cavity, extending the length of the larynx on the left side.

Further operative procedure was postponed until this cavity should be effectually treated and closed, more especially as it was noticed that as the pus escaped the breathing became easier. It was, besides, thought that were the trachœa to be opened at once disaster might follow the trickling of any of this foul pus into the lungs.

All trace of the abscess cavity and swelling had disappeared in the course of 10 days. No necrosis of cartilage could be made out as a cause for the suppuration, nor was there any sinus found leading from the abscess.

The patient was once more put under chloroform, and the first incision extended downwards through the isthmus (which gave little trouble and was tied on either side), and the tube inserted through an incision through the upper three rings of trachœa.

For four days after operation the patient suffered severely from cough, difficulty of swallowing, and stiffness of the jaws, but since then up to present date (six weeks' use of tube), patient has enjoyed fair sleep at night, freedom from cough, and a good appetite. His appearance has improved, and he has put on flesh.

Once or twice fœtor of breath has been noticed, and a slight straining, with blood discharge from mouth.

Examination of neoplasm in larynx shews that that of the left side was enlarged and overlaps that of the right, thus almost closing the glottis. The growth extends quite up to line of false band, the upper surface of which, on each side, is free from disease, but is infiltrated and inflamed. There exists very little enlargement of cervical glands.

REMARKS.—The affection began, as was clearly seen, in left vocal band, and from there spread to other parts implicated; that fully 12 months passed before ulceration was established and sprouting

commenced. The abscess that formed at the side of larynx is probably to be accounted for by putrid absorption from perichondritis. It remains but to note the extremely favourable effect the entire rest given to the larynx has had on the disease.

The PRESIDENT: Not having had an opportunity of examining Dr. Robertson's patient, I am unable to offer an opinion on it; but I may mention that, shortly after the German Crown Prince came to England, I was present at the Hotel Dieu, in Paris, when M. Tillaux did tracheotomy on a similar case, which was subsequently recorded in the *British Medical Journal*, and, I believe, survived some eighteen months. Last summer, in Paris, I had the privilege of seeing a M. Bertrand, on whom my friend M. Péan performed laryngectomy two years and three months previously for epithelioma, and who, curiously enough, died the night after I saw him, not, I am thankful to say, owing to my visit, but through a difficulty in changing his tube. I also saw a few days before a very interesting case in the service of M. Lucas-Championere, of a man, aged 19, who had his larynx destroyed by a running rope. The *débris* was removed, and with the aid of an artificial larynx he could speak very distinctly.

#### LEUCOCYTHÆMIA.

Dr. LIMONT: I shew here the spleen and liver from a case of leucocythæmia.

The patient was a groom, aged 25, and was sent into hospital by Dr. Waterson. The only noteworthy points in the history are, first the probability that some of the family are "bleeders," and second, the fact that six months previous to the beginning of his illness patient was severely crushed in the region of the spleen by a horse falling on him.

When he was admitted the large mass was at once detected. It had enlarged, not only forwards beyond the umbilicus and downwards to the crest of the ilium, but also upwards, so that it reached the seventh space in the midaxillary line. No notch was to be felt; it did not move with respiration; over the greater part of its surface there was a soft systolic murmur.

All the superficial lymphatic glands were slightly enlarged, and there were the usual signs of anæmia. The white blood corpuscles were increased in number. The liver extended down to the umbilicus.

During the time he was under observation he had from time to time smart febrile attacks, in which the temperature rose to 103 degs. or 104 degs., and there was shivering and sweating.

Noteworthy also were an acute inflammatory attack of the lower lip, attended with great swelling, and a sudden painful enlargement of the glands at the angle of the jaw, which became

as large as a hen's egg in the course of a night, lasted for a day or two, and then subsided.

Patient died on the second or third day of a right basal pneumonia.

At the *post-mortem* examination the spleen was found to weigh eight pounds four ounces, and measured 13 inches by 8 inches. One can still see the remains of firm adhesions to almost all parts of its surface. On section it was firm and of a salmon colour.

The liver is, as you see, much enlarged; it weighed 8lbs.

Lower lobe of right lung presented the appearance of pneumonia in its second stage; the small bronchi were also noted to be filled with a white fibrinous-looking material.

Both auricles contained very large, firm, white clots, processes of which were firmly fixed among the *columni carnæ*.

The retroperitoneal and mesenteric lymphatic glands were considerably enlarged, as were the bronchial glands, some of the latter being as large as walnuts.

I could, during the examination, distinguish no changes in the sternum or ribs, nor in the solitary glands or Peyer's patches.

Under the microscopes are sections of spleen, liver, and kidney.

The splenic sinuses can be made out at favourable parts of the section to be distended and filled with cells. The changes in the liver can be made out with great ease; between the liver cells are large numbers of lymphoid cells, no part of the section being free from this infiltration. There are in the kidney lymphoid cells infiltrated between the tubes and about the malpighian corpuscles. In the kidney section, too, there is an interesting demonstration of the blood changes of leucocythæmia. A large blood vessel cut transversely shews the red blood cells of a reddish colour, and the white cells blue, and the latter are seen to be greatly increased in number.

#### HODGKIN'S DISEASE.

Dr. LIMONT: At last meeting I shewed a patient with large intra thoracic growth and enlargement of the glands of the neck and other parts, and I now shew the thoracic contents and the upper part of the sternum removed *en masse*.

The weight of the heart, lungs, tumour, and piece of sternum is 7lbs. In the second right intercostal space, you will note the projection, the size of a walnut, which was to be felt when the patient was exhibited. I think you will see that there is no erosion either of cartilage or sternum. The trachea is displaced so far to the right as to lie behind the right sterno-clavicular joint, and the œsophagus lies to the right of the mid line.

Three or four inches from the top of the sternum, the œsophagus is so confined between the large mass in front and a greatly-enlarged gland behind that a rod cannot be passed through it. The com-



mencement of the descending aorta emerges from the mass. A large part of the pericardium is involved in the growth. On opening the pericardium, there was a considerable quantity of turbid fluid, containing flakes of lymph. The compressed lungs form a covering for the mass on each side. In the lungs, here and there, are nodules of the new growth. They, as well as the main mass, cut with a gritty sensation like a scirrhus.

Under the microscope, both the main mass and the deposits in the lung display a well-marked lymph—adenomatous structure. There is a very well-developed fibrous network, in the meshes of which are lymphoid cells.

Professor PHILIPSON said that the result of the *post-mortem* examination in the case of Hodgkin's disease was the confirmation of his opinion, as also of Dr. Limont's, expressed at the last meeting, that there was no pigmental colouration of the skin to justify the supposition that the retro-peritoneal lymphatic glands were implicated.

#### CARD SPECIMENS NO. I.

Dr. LIMONT—*Aneurismal Dilation of Aorta*, shewing :

1. Fusiform dilatation of aorta just above valves.
2. Aortic valves thickened and crumpled.
3. Left ventricle extremely dilated and hypertrophied.

Patient was a negro sailor, aged 43. Syphilis when young, and rheumatic fever five years ago. Symptoms were those of the heart lesions, there being aortic systolic and diastolic and mitral systolic murmurs present.

Aneurism pointed in right chest.

#### CARD SPECIMENS NO. II.

Dr. LIMONT—*Large Aneurismal Dilation of Aorta*, shewing :

1. Large fusiform dilatation of aorta from just above valves to beyond origin of left subclavian.
2. Compressed descending vena cava, producing during life markedly distended jugular.
3. Oesophagus and trachea displaced to left. No difficulty in swallowing.
4. Root of right lung compressed. Marked dyspnoea during life.
5. The recurrent branch of left pneumogastric running behind dilatation. During life hoarseness and harsh metallic cough.

Patient a French polisher, aged 48; heavy drinker, and with history of chancre. Symptoms present for twelve months.

Auscultation—Systolic aortic murmur, and greatly accentuated second aortic sound.

Aneurism pointed in right chest.

## CARD SPECIMENS NO. III.

Dr. LIMONT—*Atheroma of Aorta*, shewing :

Very marked atheroma, so that parts of it ring when struck.

Anterior surface is much more affected than the posterior.

Internal surface is very irregular and ulcerated.

Patient a labourer, aged 43 ; chancre 21 years ago. Admitted for ataxic symptoms. Complained of dyspnœa at nights. Pulse 120, very small. Marked pulsation in carotids. All cardiac sounds very feeble ; no murmur heard.

P.M.—Aortic valves incompetent.

## UTERUS WITH FIBRO CYST.

Dr. BRAMWELL shewed a specimen of this affection, with a drawing.

## TUMOUR OF GUT CAUSING INTESTINAL OBSTRUCTION.

Dr. OLIVER : On the 20th December of last year I was asked to see (in consultation with Dr. Crisp, of South Shields) Mr. T., a young gentleman, aged 21 years, who was suffering from acute intestinal obstruction. As a lad he had always been delicate, and, for several months previous to his last illness, he had suffered much from gastro-intestinal derangement, chiefly in the direction of dyspepsia and constipation. Five days before I saw him, after having been to a ball, where it was thought he had caught cold, he had a rigor. After this vomiting had been a pretty constant symptom, attended by complete constipation, great thirst, and pain over the cæcum. The vomit was not fœculent. His tongue was dry and caked ; pulse 94, very thready and bounding ; temperature 101·5. There was no headache. Chest was healthy. The abdomen was much distended, and was tympanitic. Coils of small intestine could be seen and felt through the abdominal parietes. Great pain was experienced on pressing upon the cæcum. There was a patch of dulness on the right flank, lying behind a somewhat tympanitic piece of bowel. Per rectum the finger experienced great resistance towards the right side of pelvis, but no great pain was felt here by patient. A large hypodermic needle was inserted in two places into the dull area on the right side, but neither pus nor flakes of lymph came away, only one or two drops of blood. We regarded the case as one of intestinal obstruction from peritonitis. Prescribed sedatives for that evening, and were prepared to perform abdominal section should the symptoms not improve. Unfortunately patient became suddenly worse on following day, and died in the course of the evening. At the *post mortem* there was found general peritonitis. The small intestine was in places distended to size of large—was blackish-blue on surface, and here and there a few coils were adherent to each other. In the neighbourhood of cæcum a portion of the small intestine was folded upon itself, was collapsed and

adherent to ascending colon near caput coli. The wall of the large intestine at its commencement felt thick, and here a perforation was noticed. The whole of the mucous membrane from vermiform appendix upwards, to extent of four or six inches, was in sloughing condition. In the thickness of the wall of the large intestine was found a new growth, size of half-a-walnut. On section it presented a reddish-grey colour, and to the naked eye seemed to be a sarcoma.

#### MEDIASTINAL TUMOUR.

Dr. OLIVER: This specimen of malignant tumour of lung and mediastinum was removed from the body of a boy, aged 14 years, whom Dr. Coley very kindly placed under my care and observation. There was nothing of importance in the family history, and beyond his having had a questionable attack of scarlet fever—some years ago there is nothing to mention as regards patient's personal history. Until three months ago, in fact, he had enjoyed good health. At this time he thought he had caught cold: he began to have a cough, accompanied by great difficulty of breathing, increased on exertion, and by slight frothy expectoration. On admission he was pale and emaciated. There was well-marked stridor heard both during inspiration and expiration. Pupils were slightly dilated, but equal. Patient preferred lying on his left side, well propped up in bed, the dyspnœa at times passing into orthopnœa. The neck was kept more or less thrown back, so that the muscles in front were extended and the right jugular vein was seen to be widely dilated. There was lateral curvature of the upper part of the dorsal spine, the convexity being to the left. On examining his chest, pulsation could be seen over xiphoid and the three lowest left intercostal cartilages. Left chest was quite healthy. The area of cardiac dulness was continuous, with a large dull area which passed upwards and to the right as far up as the second rib. Transversely this area of dulness measured 5 inches. Beyond this the right chest in front gave a clear percussion note. Without going into minute details as regards the sounds heard on auscultation, I may say that the chief thing noticed over the right apex was that the inspiratory murmur was coarse and that expiration was bronchial—very prolonged and whistling. Over the right base there was deficiency of the respiratory murmur, and yet distant prolonged whistling. A systolic murmur was heard over the heart, increased during expiration. The vocal resonance was exaggerated over the right chest. Posteriorly there was marked dulness over the lowest two-thirds of right chest: here were heard coarse inspiration and prolonged tubular and whistling expiration. The right chest measured 12 inches, and the left  $12\frac{3}{4}$  inches. Before his admission Dr. Coley had passed a small aspirating needle into the front of the chest, and drew off a small quantity of serum. I diagnosed the case as one of tumour in the



neighbourhood of the root of the right lung, probably malignant, but, owing to the existence of a systolic murmur, possibly aneurismal. The lad's symptoms improved under treatment, but he died somewhat suddenly on February 13th. On opening the chest the pericardium was found to contain 2oz. of clear serum. Beneath the pericardium, and occupying the posterior mediastinum on the right side, was a tumour in connection with the right lung. The heart was normal—weighed 4oz. The left lung was emphysematous, and weighed  $5\frac{1}{2}$ oz. The right lung with the tumour weighed 34oz. The root of the lung was incorporated with the tumour, which was about the size of a small cocoon. The anterior part of right lung was emphysematous, and it is seen that the tumour has extended well into the lung. On section the tumour presented the character of a lymphoma. The specimen is interesting owing to the absence of malignant disease in the parents, the youth of the patient, and the development of symptoms such as we find when aneurism is pressing upon the trachea, a joint which I did not, in spite of the extreme youth of the patient, dismiss from my mind in forming a diagnosis. *Post-mortem* the stridor is explained by the tumour having pressed during life upon the right bronchus.

#### SPECIMEN FROM CASE OF HIP EXCISION.

Mr. BLACK: This specimen was removed, a fortnight ago, from a little girl, 8 years of age, who had been under my care in the Children's Hospital. It is the upper extremity of the left femur, above the level of the lesser trochanter, with the exception of the rounded head, which, as is usual, was not found during the operation.

The child is one of a tubercular family. Twelve months ago she had a fall on the left trochanter, which was followed by lameness and pain.

On admission to the hospital, she presented all the signs of an advancing epiphysitis; the pain was especially severe on firm pressure upon the great trochanter; there was no swelling of the hip, nor absence of gluteal furrow. I endeavoured to obtain the consent of the parents at this stage to trephine the trochanter, but without avail. Treatment by rest, and extension with tonics and counter irritants, was adopted without success, until, as it was evident the child was beginning to fail, the parents gave consent for operation. On placing the girl under chloroform, bone grating was felt, and excision was therefore performed, and this specimen removed. It shews exceedingly well the effects of inflammation of the epiphysis between the trochanter and shaft, and it is evident that considerable benefit might have resulted from a trephining operation. So far, the case has done well. This is the seventh case in which I have excised the joint with successful result.

## ANEURISM OF AORTA.

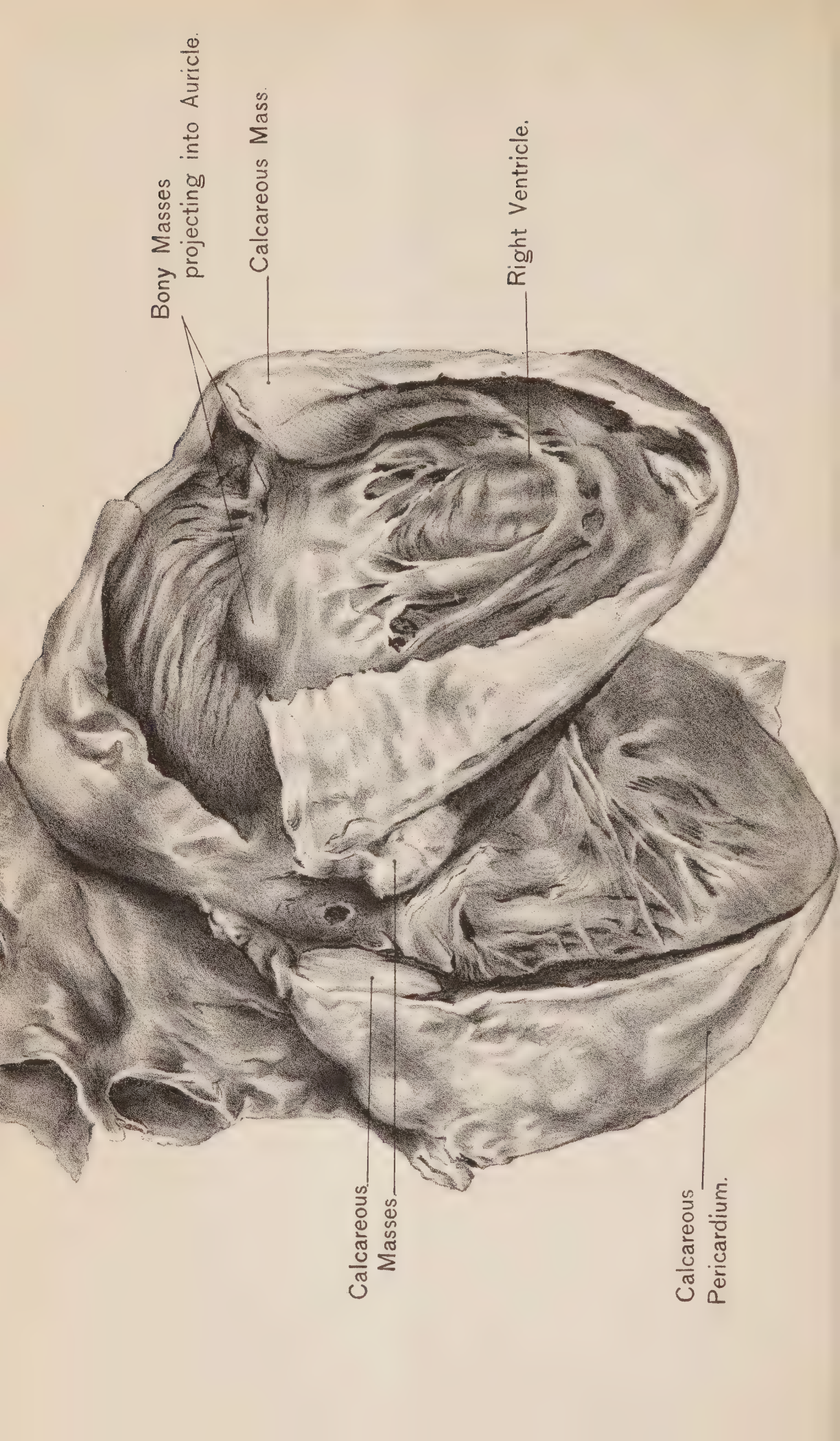
The PRESIDENT: If I mistake not this is the first specimen of a purely medical disease that I have ever had the honour of presenting to this Society, and the patient from whom it was removed came under my care under the following circumstances:—About three months ago I was asked by a very competent and accomplished practitioner to see a patient of his with a view of performing tracheotomy for syphilitic laryngitis, of which several symptoms were present, On my arrival at the house the dyspnœa had somewhat abated, and as the patient's circumstances and surroundings were very poor, I obtained his doctor's permission for his removal to the Infirmary. Under suitable treatment the symptoms markedly improved, and we were enabled to make a thorough examination of the larynx and portion of the trachea, and could find nothing there to account for the difficulty in breathing. We then made a most careful examination of the chest, and I had, during the three months he was in Hospital, the advantage of having him examined by many of my friends, none of whom could detect any sign of aneurism or other cause for the dyspnœa, which was at times very urgent. From the dyspnœa, the peculiar stridor, and the cough, the assumption of aneurism, in the absence of evidence of other disease, was very strong; still it was only by the method of exclusion that one could consider that it was an aneurism. Under these circumstances, although at times the symptoms of suffocation were very threatening, we decided not to open the trachea, and he finally died of dyspnœa a few days ago. On looking at the specimen it will be readily seen that from the small size of the aneurism, and its position at the posterior part of the arch of the aorta, no physical signs of its presence could be determined by an examination of the chest. It will also be evident the cause of the intense dyspnœa, when one sees to what extent the trachea is encroached upon. The treatment consisted of rest in bed, and 40 grain doses of iodide of potassium twice daily.

It may be remembered that Mr. Liston suffered for some time from thoracic aneurism, which eventually burst into his trachea; and though he felt confident of the disease that he was suffering from, I believe none of the physicians whom he consulted, including the late Dr. Stokes, could detect it.

Dr. OLIVER: The situation of the aneurism in Dr. Murphy's case is exactly that in which an aneurism may be present and yet not be attended by any physical signs. The posterior aspect of transverse part of the arch of the aorta may have an aneurism arising from it, and be attended by difficulty of breathing, and yet neither dulness on percussion, pulsation, or bruit be present. Some years ago, I exhibited an aneurism which arose from the transverse part







Bony Masses  
projecting into Auricle.

Calcareous Mass.

Right Ventricle.

Calcareous  
Masses

Calcareous  
Pericardium.

of the arch of the aorta, which had pressed upon the trachea. The young man had been admitted into the Infirmary suffering from asphyxia, followed by a gradually developing coma, and it was only after tracheotomy had been performed and a large gum elastic catheter passed down the trachea, that the pulsation of an aneurism could be felt, as my friend and colleague (Professor Philipson) will remember. In that case there were no physical signs leading up to the diagnosis of aneurism; but the history of syphilis, the youth of the patient, and the comparative suddenness of the symptoms, pointed to the possibility of it. I do not wonder, therefore, that in our President's case no signs of aneurism were present. These are the cases in which tracheotomy has sometimes to be performed to give relief to urgent and distressing symptoms.

Professor PHILIPSON regarded the pressure signs in the diagnosis of thoracic aneurism of the greatest importance. Not only in patients with stridulous breathing, but also in those with dysphagia, it was invariably his custom to institute an examination, as to the existence of aneurism, before treatment was commenced.

#### CALCAREOUS HEART.

Dr. DRUMMOND shewed a calcareous heart, and said: This specimen was removed from the body of a man, aged 43, a sailor, who recently died in the Royal Infirmary. His illness began about fourteen weeks before his admission, when he complained of cough and shortness of breath as the result, he thought, of cold. He was able to follow his employment as a sailor until ten weeks before he came under observation, when shortness of breath and swelling in the legs obliged him to remain on shore. Soon after he noticed that the abdomen was swelling, particularly in the epigastric region. When admitted into the Infirmary he was cyanosed in the face, and was suffering very much from shortness of breath and cough. He lay chiefly on his right side. There was a large quantity of frothy, colourless expectoration. The legs were œdematous, and the abdomen contained fluid. The walls of the chest, in the neighbourhood of the right nipple and in the right hypochondrium, were œdematous. The heart apex was diffused and most distinct two-and-a-half inches below the nipple in the epigastrium. The sounds were muffled, and there was considerable irregularity, and some beats failed to reach the wrist. There was a short systolic murmur at the apex, whilst a tricuspid systolic bruit could be heard over the right side of the heart. The aortic sounds were indistinct, but there was no murmur. On percussion the right side of the chest was absolutely dull from the first rib down to the liver. The left chest was resonant in front. On auscultation the sounds were feeble and distant over the dull area, especially as the liver was approached, and the vocal sounds



and fremitus were distinctly lessened over the same region. At the back both sides are fairly resonant except the region above the 6th rib on the right side, where the note was dull. It was obvious that the cause of the dullness on the right side was effusion, which was shewn to be the case by a hypodermic needle, which drew off blood-stained fluid. When questioned as to previous illness, he stated that he had suffered from cough off and on for many years, but had never had any inflammatory attack that he knew of. He denied a syphilitic history. The family history was good. Seventeen ounces of blood-stained fluid were taken from the right chest in front. This afforded considerable temporary relief. A few days later the expectoration was observed to be bloody, and this continued for several days. Cyanosis steadily increased, and the patient died a fortnight after his admission into the hospital.

*Post-mortem Examination.*—The heart, which was intimately adherent to the sternum in front, and to adjacent structures on each side and behind, weighed 1lb. 10oz. The pericardium was adherent and strikingly calcareous. The right ventricle was more affected by the deposition of calcareous material than the left, though a thick broad band ran across the latter, almost bisecting it. In places wedges of bony material passed through the whole thickness of the heart walls, appearing on the inner side as little nipple-like prominences. This was noticed chiefly in the right auricle, and at the base of the left ventricle. It was obvious on a close examination that the disease had commenced by the obliteration of the pericardial sac, and had penetrated into the heart, affecting chiefly the visceral layer of the pericardium and the heart muscle. He (Dr. Drummond) hesitated between tubercle and syphilis. The interest of the case lay in the rarity of the specimen, and in the fact that the symptoms and signs of the lesion were markedly suggestive of mediastinal tumour. No other tubercular disease was found in the body, nor was there any evidence of syphilis. The patient denied a syphilitic history.

Professor PHILIPSON suggested, as an explanation of the conditions, the occurrence of former myocarditis, with the formation of fibrous bands between the muscular fibrillæ and subsequent calcareous transformation, as a degeneration.

#### OVARIAN TUMOUR SUCCESSFULLY REMOVED FROM A WOMAN IN HER SEVENTY-SIXTH YEAR.

Dr. Limont showed this specimen for Mr. Page, who supplies the following notes :—

As it is my intention to publish *in extenso* this case of ovariectomy in an aged person, I shall not now enter into details. The specimen in itself does not present features of much interest. The



patient from whom it was removed is now in her seventy-sixth year, and the question has been more than once put to me, was the operation worth while. Well, that was a question for the patient's consideration, and her present condition answers it to her satisfaction, and I may say, too, to my own. Had the tumour been of such a nature that it could have been emptied by tapping, I do not know that I should not have persuaded her to trust to that method of relief rather than to ovariectomy; but seeing that it was not, and that her medical attendant, Dr. Harcastle, considered her to have a good deal of vitality, and that his opinion that she could weather the operation was coincided in by Dr. Philipson, who saw the case in consultation, I could not think it right to deny her the chance of relief which at her time of life so serious an operation afforded. It is now over a fortnight since the operation, and the patient is taking solid food freely, and looking forward to leaving her bed in the course of a few days. I consider her to be out of danger.

Professor PHILIPSON said that he had seen the patient, in consultation with Dr. Hugo Harcastle, and had advised the operation of ovariectomy, which happily had been successfully performed by Mr. Page, with a favourable recovery. He was of opinion that if the patient, from her previous history as to sound health, from her otherwise healthy condition and strength of constitution at the time of the contemplated operation, was a suitable case for operation, that the age should not be considered a bar to the operation. He referred to another case in a lady, aged 80, in which his opinion had been required as to the propriety of the operation of ovariectomy, and in which he had advised the procedure. The operation, in this case, was successfully performed, with a favourable recovery.

#### TRUE KNOT ON CORD.

Dr. BRADLEY: I was called to attend Mrs. W., aged 25, in her fifth confinement. A living male child was born two hours after my arrival. The cord which I shew measured 32 inches, and had a true knot upon it twelve inches from the umbilicus. At first sight it would appear as a double knot, but on closer examination, it turns out to be what is known as an (8) knot. Of all the varieties of knots, this one is the one best calculated to allow free circulation through the cord.

The conditions which favour the formation of knots on the cord are four:—

- I. Long cord.
- II. A large quantity of liquor amnii.
- III. Unusually strong movements of child.
- IV. Roomy pelvis, and small child.

In this case, two at least of the conditions were present, namely, a long cord and very active movements of child. The mother informed me that of all her children this one was the most active during intrauterine life. As to the way in which knots are formed upon the funis, not a few believe they are produced during the birth of the child, while many believe they are formed during intrauterine life. In this case I certainly number among the latter, and I am confirmed in my opinion from the character of the knot and its position on the cord. That a knot may form on the cord during delivery is equally certain.

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## NOTES OF A CASE OF PERNICIOUS ANÆMIA.

By G. H. PHILIPSON, M.A., M.D., D.C.L., F.R.C.P.; Senior Physician to the Royal Infirmary, Newcastle-upon-Tyne; Professor of Medicine in the University of Durham.

John D., a labourer, aged 51, married, living at Felling Shore, was admitted as an in-patient at the Royal Infirmary, Newcastle-upon-Tyne, under my care, on November 8th, 1888.

He complained of bodily weakness of eight months' duration; also of cramps in his legs, and at times of colicky pains. He has never had syphilis. He has been fairly temperate.

He has little appetite, and feels uneasy after taking food. He looks much older than his age, and his skin is dry and has a sallow appearance. The hair is white, and in some places it is silvery. He is listless, and answers questions slowly and apparently with an effort. He has lost nearly all his teeth. The arcus senilis is present in both eyes. The pupils are both dilated, the eyes are watery, and, upon ophthalmoscopic examination, the fundus was seen to be very bloodless. There are no hæmorrhages. The lips are very pallid, so are the mucous membranes generally.

The respiratory organs are healthy. The heart's apex beats in the fifth interspace, the sounds are short and weak; a mitral systolic murmur, with the first sound, is occasionally audible. The pulse is variable, mostly about 80, and easily compressible. The radials are equal. The liver is normal. The splenic dulness is increased; it commences at the seventeenth rib and extends to the eleventh rib. The urine has varied from 22 to 26 ounces per diem; it has been clear, without sediment, of S.G. 1021, acid, without albumen or sugar, but with an increase in the chlorides.

The patellar tendon reflex is absent in both legs. The plantar reflex is marked in the right foot, absent in the left. Ankle clonus is slight in the right leg and is absent in the left. Sensation is distinctly delayed. There is commencing ataxia. He also complains of a "prickling" in the soles of the feet.

The temperature during the time he was in the Infirmary was normal or slightly subnormal, excepting on two occasions, when it was temporarily 100° F., and a little over 100° F.

The examination of the blood, on November 15th, shewed that its brightness of colour was diminished; it looked pale, and was watery, and quickly dried. Under the microscope, the red corpuscles did not form into rouleaux; their outline was altered, they appeared irregular, and were of an oval shape; they had no double contour, no central dark spot, only a yellowness, shading off to the edges. The red blood discs averaged 1,660,000 per cubic millimetre; the white, as compared with the red, were as 1 to 250.



The case was diagnosed as one of pernicious anæmia. Arsenic, in the following combination, was prescribed, and was from time to time increased :—

R. Liq. Arsenicalis, m. v.  
 Ferri Tartarati, gr. vii.  
 Tinct. Calumbre, ʒss.  
 Aquæ ad ʒi. ft. Haustus, ter quotid : sum :

He was placed on milk diet. To this minced meat was subsequently added. On January 19th, 1889, it was noted that in the examination of the blood, the red discs were much more perfect, and that the double contour was marked, also the dark central spot. The blood was brighter and darker. The red blood discs averaged 1,700,000 per cubic mm.

He expressed himself as feeling much stronger. His movements and speech were performed with more alacrity. He was more cheerful, and appeared to enjoy conversation. He has gained over one stone in weight. At the time of his admission, his weight was 10st. 9lb., and at this date it was 11st. 10lb.

The solution of arsenic has been increased to m. xiv. three times each day.

This man was a patient in the Newcastle Infirmary, under the care of Dr. Byrom Bramwell, in 1875, and was then suffering from pernicious anæmia. The particulars of the case were given by Dr. Bramwell in a paper entitled "Progressive Pernicious Anæmia," contributed to the Northumberland and Durham Medical Society, at the March Meeting, 1877, as published in the Transactions, see p. 164.

The treatment adopted was the internal administration of arsenic. The dose, at the commencement of the treatment, was m. ii. of the liquor arsenicalis, three times each day, and this was gradually increased to m. xvi.

After a stay in the Infirmary of two months, he went to work. He relapsed, was readmitted, and was again treated with arsenic for 22 weeks. He regained his strength, and resumed his occupation, and continued at work up to nine months ago, when his strength failed, and he sought admission at the Royal Infirmary.

The following table represents the alterations in the blood when examined by means of the hæmocytometer :—

1888—			
December	3—	Red blood discs averaged 1,200,000 per cubic millimetre.	
"	12—	"	1,600,000 "
"	22—	"	2,100,000 "
"	29—	"	1,600,000 "
1889—			
January	3—	"	1,600,000 "
"	12—	"	1,540,000 "
"	19—	"	1,700,000 "
February	12—	"	1,600,000 "

On January 12th the white discs, as compared with the red, were as 1 to 200.

On February 29th the blood was examined by the hæmoglobinometer, and it was found that the cells contained only half the amount of hæmoglobin.

The chief interest of this case is the long interval of time, from the first occurrence of the symptoms in 1875, to their recurrence in 1888; also to the marked effect of the treatment by arsenic at both times. This case, therefore, is an exception to the general rule of pernicious anæmia, being gradually progressive to a fatal issue.

The structural change of fatty degeneration was manifested by the arcus senilis, while the absence of hæmorrhages is worthy of note.

The variation in the quality of the blood is an additional point of interest. Only once (on December 22nd) the red blood discs were over 2,000,000 per cubic mm., and even then were far below the normal of health, which is 5,000,000 per cubic mm.

Again, the departure from the healthy condition of the blood in the number of the white discs to the red is noteworthy. It varied from 1 white to 200 to 250 red, whereas in the normal condition the comparison is as 1 to 50.

The signs of commencing locomotor ataxia is an additional point of interest in the case. An endeavour will be made to keep this patient under observation as an out-patient of the Royal Infirmary, for the purpose of observing whether the condition of ataxia becomes more pronounced.

Dr. A. E. MORISON asked Prof. Philipson whether there was any history of syphilis, as he believed that very often syphilis was the cause of the anæmia. Dr. Morison had had under his care a case of pernicious anæmia with a distinct syphilitic history, which was only benefitted by large doses of arsenic. He was cured for two years, when the same symptoms returned, and again he improved under the arsenic.

Dr. OLIVER: Dr. Morison in his remarks has raised a very interesting question, viz., the relationship of syphilis and anæmia. Anæmia is too frequently consequent upon syphilis, and whilst due in many cases to the protracted mercurial treatment which many of these patients have undergone, yet it has another explanation, as Dr. Samuel Fenwick shewed a few years ago. A diseased condition of the submucosa of the gastro-intestinal tract has been found by him in some cases of syphilis, and this, interfering with the perfect digestion and absorption of food, causes anæmia. Anæmia would thus be due to imperfect elaboration, and would be the counterpart of that met with in many cases of pernicious

anæmia where there is interfollicular inflammation or atrophy of the mucous membrane of the stomach. The successful treatment of the case just reported must be extremely gratifying to Prof. Philipson, particularly as it is the second time an anæmia, quickly progressive in the patient, has been checked ; and from his experience of this and other successful cases of anæmia treated in a similar way, I can quite understand him so frequently recommending arsenic.

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## NOTES ON A CASE OF CATHETER RETENTION FOR TWENTY-TWO YEARS.

BY DR. COLLIE.

A. B., when 21 years of age, contracted gonorrhœa, which (being imperfectly treated) ended in gleet. At 26 he began to have symptoms of stricture of the urethra. For the next nine years he was troubled more or less with retention of urine, relieving himself occasionally by a catheter. He was not systematically treated, if treated at all, for the stricture.

At the age of 35 the catheter gradually became more difficult to pass, and finally when in the West Indies, where he had gone on a voyage, he was unable to reach the bladder. He consulted a medical man, who also failed to pass the catheter. The urine now, however, came away in very small quantities per urethram, and later he was himself, with great difficulty, able to pass a catheter. A perinæal abscess now began to shew itself, and his medical attendant advised him not to undertake the voyage home in his present condition. A few days later he sailed for England. When at sea 14 days the perinæal abscess burst, urine escaping through the opening. During the 14 days he had on one or two occasions passed a No. 5 gum elastic catheter.

On arriving at Liverpool, after a passage of 30 days, he was in a miserable condition; was carried on shore, and attended by a surgeon. No. 12 was passed under chloroform. Although he was under medical care for several weeks, and a catheter passed at regular intervals, the perinæal fistula did not heal. As the passage of the catheter caused him considerable pain, and as he was able to pass what he considered a very fair stream, he left Liverpool and returned home to Sunderland. At this time about a fourth of his urine escaped through the perinæal opening.

Shortly after his return to Sunderland the stricture again contracted, and nearly the whole of his urine was passed through the fistula, a very small quantity coming through the urethra. Three years later he consulted two Sunderland surgeons, who failed to reach the bladder with any size of catheter, and advised him to consult Mr. Holt, of Westminster Hospital. Mr. Holt, under chloroform, passed a catheter, and did not attempt to close the fistula. He was then advised to pass the catheter upon himself as occasion demanded, but having once got No. 11 gum elastic catheter fairly *in situ* he has kept one there ever since, and refuses to be without one. For the last 22 years this man has worn a gum elastic catheter night and day. The instrument at varying intervals has, of course, to be replaced by a new one, the bladder

end being constantly liable to incrustation from the deposition of the urinary salts. Frequently also they get blistered, and irritate the urethra.

He has often tried to pass his urine without the catheter, but the stream is invariably exceedingly small, and always at last stops. For the last 22 years he has not been able to go one day without the catheter. If he keeps it out 8 or 10 hours it is with great difficulty that he replaces it. Nine days is the longest he has worn an instrument without taking it out to examine it. He tells me he has long since grown thoroughly accustomed to the presence of the catheter, and compares it to the use of false teeth, inasmuch as he now looks upon his catheter as part of himself. He tells me his urinary trouble has not kept him one day in bed for the last 22 years, and that he has been otherwise perfectly healthy. I strongly suspect from what I gather from his friends that he greatly minimizes the pain he suffers. However, the fact that he now weighs  $15\frac{1}{2}$  stones, and that in 1877 and 1878 he weighed  $19\frac{1}{2}$  stones, speaks for itself.

During the last 22 years he has earned a living first as a colliery clerk, working from 7 a.m. to 4 p.m., and taking his turn of night duty, and then as a publican; and lately he has for many years carried on what to him is the remunerative, although not arduous, occupation of a bookmaker.

Twenty-two years of continuous retention of catheters goes far to prove how insensible both the urethra and the bladder must be. And if additional proof were wanted it is to be found in this, that he recovered in ten days from an acute attack of cystitis (the first he has suffered from) while wearing the instrument.

He was treated with henbane, belladonna, and alkalies, and rest was enjoined. When the inflammation was at the most acute stage he left his bed, and went out to attend to what he explained was a very important piece of business. I learned afterwards that the important business had a connection with the Manchester Cup.

I have not even mentioned to him the possibility of his undergoing an operation for the cure of his fistula. Nor do I intend to. His experience of surgical interference is, to say the least of it, not such as to reassure him. His love and respect for the profession is not, I fear, what it ought to be; for when he sent for me to attend him his wife very plainly indicated in what light he viewed the healing art.

As a general practitioner, I find too often that surgical or medical treatment can under certain circumstances be represented merely by the relative and not the absolute best. I fear it must be so in his case.

In concluding, I would once more refer to what has already been alluded to recently at these meetings, namely, the serious

consequences of gonorrhœa. Thirty-nine years ago my patient contracted gonorrhœa, and he has never been well since.

Dr. BENINGTON narrated a case he had had nine years ago. A patient had repeated attacks of retention of urine, which, however, were overcome by appropriate treatment, but neither he nor Mr. Clutton, Assistant Surgeon to St. Thomas' Hospital, who saw the case with Dr. Benington, were able to pass any form of instrument through the stricture.

The patient was kept in bed, and repeated gentle attempts made to find a passage, which, however, failed; and the patient having had retention for 48 hours, which resisted every other form of treatment, Mr. Clutton opened the urethra behind the stricture, and passed a large catheter into the bladder. The stricture itself was not divided, as it was confidently expected that during the time of the patient's rest in bed after the operation an opening could be found.

During the next fortnight repeated attempts were made, which failed, and the patient got up with the tube still in the perinæum. He would have no more catheterism, and as his health improved he became quite reconciled to his condition. The tube was soon left off, and he now continues to micturate through his perinæum, and is more than content with his condition. He was a young married man with a steadily-increasing family, which it is needless to say has not further increased since the operation. His only annoyance is that whenever it is necessary to attend to the calls of nature, he must, if out of doors, make for a railway station, where he can find w.c. accommodation.

For a year or more he passed a No. 8 gum elastic catheter through the false fistula into the bladder two or three times a week, and he is still under orders to do so occasionally. If he gets a chill there is a tendency for the parts to contract. Once after bathing at Brighton he had a sudden attack of retention, and Dr. Benington was summoned urgently to see him. At first there was no passage whatsoever to be found, but after free use of cocaine he was fortunate enough to pass a No. 1 silver catheter, from which the urine drained for two hours. Having once got a passage, and the parts fully under influence of cocaine, he rapidly passed one instrument after another, and finished by passing a Hegar's dilator which he happened to have in his bag.

Since this the patient has, so far as is known, gone on satisfactorily, still micturating through his perinæum.

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## TREATMENT OF AFFECTIONS OF THE MIDDLE EAR—OTORRHŒA.

By W. ROBERTSON, M.D.

Of all the affections of the middle ear, that to which discussion might well be referred to for a few moments, viz., otorrhœa, is the most prevalent, and is, besides, notoriously the most dangerous to life as well as hearing.

Resulting for the most part from a neglected acute or subacute attack of otitis media, and propagated by the continuance of the causes that gave rise to this, pathological processes are thereby created in the ear which, on the one hand, to a greater or less extent impair hearing, and on the other insiduously or rapidly encroach on closely related structures, *e.g.*, the venous sinuses of the brain, etc., to the peril of the individual.

I have no desire, nor would it be possible in a short paper, to enter into the details of all the accidents that may happen in the course of an otorrhœa, but shall as briefly as possible give a short *resumé* of the more important points, more especially as regards the treatment of the subject on hand.

I imagine I am free to state that there is perhaps no surgical condition that demands so much care, delicacy of handling, and patience as the treatment of otorrhœa even as to the local conditions; but what I desire more particularly to discuss is the bearing of nasopharyngeal diseases on aural conditions and their treatment. It is unnecessary here to refer to the close relation of the nose to the ear. A cursory glance at the drumhead and an examination of the throat brings one very far short of the possibility of a reliable diagnosis of any aural condition. The absolute necessity of relieving nasal disease in connection with otitis in its various forms is now well recognised. Every hindrance to nasal respiration must be removed if we are to hope not only to cure but to ward off aural disease.

I take it that there will be little diversity of opinion on the causative effect of adenoid vegetations on the pharyngeal vault, in producing not only acute and chronic suppurative catarrh in the tympanum, but also laying the foundation of those adhesive processes in that cavity which lead to such hopeless cases of deafness, if not actual dumbness and deafmutism. In the majority of cases of otorrhœa in youth these are invariably found to be present, and their excision alone will be found to cure the former condition. Generally speaking, adenoids may be said to harbour germs, such as those of scarlet fever, measles, typhoid pneumonia, &c., elaborate them, and transmit them to the middle ear, there to cause the condition we are treating. These growths (adenoids), and the secretion they produce, form a most suitable soil for all the patho-

genic microbes that frequent the nasopharynx. By direct continuity and contiguity these pass through the Eustachian tube into the ear. Consequently we find that those zymotic diseases, when they attack an individual suffering from adenoids, and perhaps rhinitis, invariably produce otorrhœa. It would seem, therefore, that in the careful treatment of these affections in the first years of life, not only would the ravages of zymotic diseases, such as scarlet fever and measles, &c., be mitigated, but that middle ear affections (often attended with such deplorable results) would become vastly less frequent.

In the case of the young, as well as in adult life, the other conditions demanding treatment are the various affections of the posterior nares and nares *ex-gr.*, enlarged posterior ends of lower turbinated bones, which often occlude Eustachian openings, enlarged turbinated bones, septal exostoses, and septal deflections. In almost every case of otorrhœa one or other condition of nasal disease will be discovered if closely looked for, and the treatment of this is an essential part of the treatment of otorrhœa which cannot be dispensed with.

I have in another paper alluded to the treatment of the grosser nasal lesions, and shall only refer here to milder forms of nasal disease. Dobell's solution, used in the form of spray—an antiseptic and solvent—answers most conditions of acute and chronic catarrh of nasal mucosa. For stenosis, combined perhaps with a chronically-thickened state of the nasal mucosa, the free application of a 30 per cent. solution of lactic acid several times at intervals, combined with the use of nasal tubes or bougies to keep up gentle pressure on the inflamed thickened membrane, are remedies of which I can speak highly, the latter especially. This gradually braces up the loose mucosa, straightens the septum, and presses aside lower and middle turbinated bones, the origin of so much trouble in nasal complaints.

Enlarged tonsils, though not entering directly into the etiology of otorrhœa, yet are a source of weakness, and the repeated attacks of acute inflammation they are subject to determine and keep up congestion of neighbouring parts, *ex. gr.*, Eustachian tubes. For their safe removal nothing is safer than the platinum point heated with the galvano-cautery. With this there is no risk from hæmorrhage, no pain, no shock where this is undesirable, and no fear of subsequent infection. Where cutting operations are objected to this can be employed, and you can destroy as much or as little as you desire.

Where any stricture of the Eustachian tube exists, and consequently due ventilation of the middle ear prevented, I can speak favourably of the electrolysis of the tube in certain cases where I have used it. Here it may be well to draw your attention to the necessity in every case of otorrhœa of keeping the Eustachian

tube clear of secretion, either by the use of the catheter or by politzerisation.

The several conditions observed when a case of otorrhœa presents itself for the first time are matters of common knowledge. For the most part the external meatus, often swollen and narrowed, is filled with ill-smelling pus. After clearing this out polypi are often discovered. When these are removed we may not even yet be able at a single glance to diagnose the precise state of matters. Generally a perforation of distinct character can be seen; but often it may require several examinations at intervals, after due time has been allowed for the subsidence of inflammatory œdema of the mucousæ, to permit a reliable diagnosis.

To secure as thorough an aseptic condition of the parts as possible several well-known methods are employed. Of these the most reliable, perhaps, is irrigation of the tympanum through the perforation with corrosive chloride. I say advisedly through the perforation, for no amount of syringing from the meatus will succeed in cleaning infectious *debris* out of the recesses of the middle ear. The tympanic syringe can be used with the most absolute safety. It is impossible, from the nature of its construction, for it to force material into the interstices of the tissues from the middle ear, and thus lead to grave intra-cranial complications, as asserted by Bergmann.

The turn given to the beak of the syringe directs the fluid so that it circulates in the cavity, thus obviating any direct violence, which might be disastrous.

As secretions are prone to lodge in the attic and antrum towards these regions, a free play of fluid must be directed. Semi-membranous deposits are frequently found in the former region clogging the free movements of the ossicular chain, and thus directly causative of deafness. When this is the case, the first application of the tympanic syringe may succeed in freeing the ossicles, and, consequently, in restoring hearing, to the joy of the patient and encouragement of the surgeon; for if the stapes is left, and is moveable, and the foramen rotundum not thickened, then hearing will be good.

Special attention is due to the products of secretion in these cases. These give rise from pressure to ulceration of the mucous membrane of the tympanum, which, extending from this to the bone, through connective tissue threads, gives rise to inflammation of, and ultimately necrosis of, the bone. These products often assume the form of tumours, presenting a hard surface, and have thus been mistaken for exostosis at first examination.

Thus again and again must the process of cleansing be repeated before even the condition of parts can be made out to enable one to say how far the mucous membrane of the tympanum is destroyed—whether any of it is left as a protection to parts beyond—or



whether what is seen is merely granulation tissue, which again may be wanting, and bare bone met with. Where little or no membrana is left, prolonged gentle probing must be employed to aid diagnosis. Again, when adhesive processes have set in, resulting from contraction of previously existing granulation tissue, conditions are met with well nigh indecipherable. The membrana is bound down on to the promontory, and the ossicular chain is deviated in many abnormal directions. As suppuration subsides, and granulations are got rid of, the conditions become clearer, and the extent of damage to the membrana and ossicular chain can be made out, necrosis of the external meatus or middle ear determined. An estimate, also, as to the amount of hearing that will remain can now be given.

An effort must now be made to bring pathological processes going on to a close. Thorough purity of the tympanum and its recesses must be maintained. To this end complete irrigation with corrosive chloride every second day, and subsequent dusting with boracic acid, are the best remedies I know of, together with the use of the catheter (Eustachian) at each toilette. It is to be remembered that once the cavity of the tympanum is opened putrifaction bacilli gain access, and keep up suppuration. Hence the need of directing the patient to guard against such emergencies, and that through life some reliable prophylaxis must be adopted and acted upon by him.

As a routine measure the use of spirits of wine and boracic acid used twice or thrice a week prove useful.

As a rule all the above measures can be readily carried out in adults, even the severest of them, with the help of cocain. In children it is different. Here, especially in infants, where there is any suspicion of grave aural mischief, then chloroform must be given, and under this polypi must be extracted; the Eustachian tube used; and as the patient comes out of chloroform adenoids can be removed. It is in infancy and childhood when the gravest conditions become established, which if left to run their course lead to deplorable results. Sclerosis extends to the *finestral*, thence to the labyrinth, and ultimately to destruction of the nerve. I am satisfied that measures that would greatly tend to obviate such dire results are largely neglected in children, and that thereby the population of deaf and dumb institutions is unnecessarily large.

The remaining points that arise for discussion in connection with otorrhœa are—

Mastoiditis,  
Meningitis,  
Cerebral abscess,  
Venous thrombosis,

all lesions offering such complexity of discussion, that I shall be excused merely mentioning them, and that for the purpose of giving

the paper an appearance only of finish. When mastoiditis betrays itself by its usual symptoms in the course of an otorrhœa, or for that part in a neglected acute otitis media, I take it that the first legitimate step in treatment is Wilde's incision and the use of Leiter's tubes with iced or hot water, and that this course be pursued for the first 24 hours, along with the other orthodox measures of treatment I have mentioned. Wilde's incision relieves tension and allows the removal of any local focus of infection per the mastoid veins. The underlying bone can be examined and further steps taken if necessary.

In the presence of grave cerebral symptoms I have noticed these measures alone successful. In the case of an adult suffering from neglected acute otitis media, with perforated membrana, rigors, and pyrexia, Wilde's incision, politzerisation, and the tympanic syringe proved effective. There was brownish swelling extending down the neck and up to the occiput, with severe pain and ashy pallor of countenance; when the incision at any time tended to close in this case discomfort in the above way was noticed, and recourse had to be had to opening the incision afresh. Ultimately the patient recovered, and that with a healthy membrana and good hearing in the organ.

In the event of the symptoms deepening after the incision a further step must be made, and that is opening of the antrum, and no better instrument for this purpose can be found than an olive-shaped drill, worked by the dentist's engine.

The point of application may be made out as follows:—Allow a line to drop vertically on to the superior margin of bony meatus, draw another at right angles to this at the top of the meatus; in the angle of these two lines the burr may be safely worked into the antrum mastoidei without fear of injuring any structure, *ex. gr.* the sinuses.

The drill permits of thin pieces of the bone being removed at a time, nor is there any jarring as with chisel and mallet. When a connection with the antrum is effected, free irrigation with the mercuric solution is to be maintained and the other necessary measures adopted. When graver intra-cranial symptoms shew themselves, such as rigors, paralysis, or coma, the steps so successfully adopted by McEwen in several cases ought to be had recourse to in search of cerebral abscess in the temporal lobe. Trephining the skull through the upper part of the squamous portion of the temporal bone, wide of the middle meningeal artery, is the measure to be adopted, and which has been followed by success.

The meeting was brought to a close by a vote of thanks (proposed by Prof. PHILIPSON) to the President and Secretaries for their valuable services during the session.

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